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ABSTRACT

A report on the financial position of Ontario universities continues and extends a pattern of analysis that has been developed over many years by the Council of Ontario Universities. It reviews trends over time and makes comparisons, among different sectors in Ontario and with other jurisdictions, to put into perspective the adequacy of funding levels available to universities in the province. Data on the financial position of universities in Ontario are grouped into the following categories: universities as a priority in Ontario; interprovincial comparisons; comparisons with the United States; impact on university spending patterns; Ontario government financial resources; and the economic benefits derived from university timing. Figures and tables include the following information: index of expenditures per client served in Ontario 1977-78 to 1989-90; transfer payments to medical doctors, universities and faculty 1977-78 and 1988-89; capital formation and capital stock, buildings; Ontario universities' share of provincial budgetary expenditures; interprovincial comparisons of university financing 1986-87; and salaries and wages, Ontario universities 1977-78 to 1987-88. Some of the results indicate: the government's total expenditures have increased at a rate a third faster than its grants to universities; tuition fees are 70% or 80% higher at U.S. public universities than Ontario universities; and Ontario can afford to invest more in its universities. An appendix provides an update of the Ontario university non-salary price index. (SM)

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THE FINANCIAL POSITION OF UNIVERSITIES IN ONTARIO: 1989

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PREFACE

This report on the financial position of Ontario universities continues and extends a pattern of analysis which has been developed over many years by the Council of Ontario Universities. It reviews trends over time and makes comparisons, among different sectors in Ontario and with other jurisdictions, to put into perspective the adequacy of funding levels available to universities in this province. The most current data available are used throughout the report.

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THE FINANCIAL POSITION OF UNIVERSITIES IN ONTARIO:

1989

Universities as a Priority in Ontario

The priority afforded to this province's universities by the Government of Ontario has declined steadily and substantially over the past decade. As can be seen in Figure 1 and Table 1, the universities' share of total government spending has declined from 5.9% in 1977-78 to 4.5% in 1989-90. This decline in priority will cost the universities $506 million in operating grants in 1989-90 alone. Even within the past several years, when operating grants to universities have increased at a significant rate, the universities' declining share of provincial budgetary expenditure has cost universities $100 million.

The provincial government's own expenditures have consistently grown faster than government grants to universities. As Figure 2 and Table 2 display, the government's total expenditures have increased at a rate a third faster than its grants to universities.

The provincial economy has also grown faster than university operating support. Figure 3 and Table 3 use the growth of the Ontario economy as a benchmark against which to measure the growth of Ontario government expenditure and operating grants to universities. While Ontario government expenditures, with or without public debt interest payments, have grown at about the same rate as the economy of the province as a whole, between 1977-78 and the late 1980's operating grants to universities expanded only 75% as much as the economy of the province.

While other publicly supported sectors have enjoyed real increases in their levels of support per client served, the position of Ontario universities has declined. Figure 4 and Table 4 show that hospitals, elementary and secondary schools, and institutions for adult offenders all have seen their per client expenditures increase at a rate faster than inflation. The position of

post-secondary institutions, however, has declined. After the impact of inflation is eliminated, hospitals spent 32% more for each day of patient care in 1987-88 than they did in 1977-78. Universities, in contrast, spent 13% less for each full time equivalent student enrolled in 1987-88 than they did a decade earlier.

As Figure 5 and Table 5 demonstrate, **over a ten year period, when the Ontario government increased the constant dollar value of its operating grants to universities by 5.7%, its payments to physicians and other medical practitioners increased by 113.8%.** During this same period, the funds available for university faculty increased by 6.8%.

Interprovincial Comparisons

Government support per student to Ontario universities has traditionally been below the average for the rest of the country. Figure 6 and Table 6 demonstrate this point. In 1988-89, it is estimated that Ontario ranked ninth among the ten provinces, or about $800 per student below the average for the other nine provinces. The gap between Ontario and the rest of Canada closed somewhat during the mid-1980's, in part because of improved levels of support but largely because the position of universities in other provinces declined.

Table 7 compares operating grants to universities according to the relative wealth of each province. In 1987-88, the most recent year for which data can be estimated, Ontario ranked ninth on this indicator with a level of grants 30% below the average for the other provinces. Table 8 demonstrates that in 1986-87, on seven of the eight indicators used by the Tripartite Committee on Interprovincial Comparisons, Ontario ranked below the average for the rest of the country. Table 9 compares the level of funding received by universities in Ontario and the other provinces in 1986-87 with that received by hospitals and schools. While Ontario ranked third in the amount of money that school boards spent per student that year and fourth in the amount hospitals spent per patient day of care, it ranked tenth in the amount universities spent per student.

Relative to its economic growth, Ontario ranks ninth out of the ten provinces in growth of operating grants to universities. Figure 7 and Table 10 compare rates of growth of operating grants to universities in Ontario with those in other provinces, but with the data standardized to each province's gross domestic product. They demonstrate that while, in the decade between 1977-78 and 1987-88, every provincial government in the country failed to increase operating grants to universities as fast as their respective economies were growing, the Ontario government fell further behind all other provinces except British Columbia.

Comparisons with the United States

Across a range of indicators, recent evidence makes clear that many state jurisdictions in the United States have afforded a higher priority to universities than the Government of Ontario has given to universities in this province. Figure 8 shows that, during the decade between 1977-78 and 1987-88, the growth rate of state government appropriations for higher education per full-time equivalent student in the United States exceeded the rate of inflation. In Canada, during that same time period, provincial government grants to universities per full-time equivalent student declined by 20%. This decline is evident both in Ontario and in the nine other provinces.

Figure 9 focuses the analysis on the most recent five years of available information and compares Ontario with eleven states which are either among the largest states in the country or are major states in close proximity to Ontario. While grants to universities per student in Ontario between 1982-83 and 1987-88 did not keep up with inflation, state appropriations per student in some American jurisdictions grew by 35 per cent.

Figure 10 and Table 11 demonstrate that Ontario universities receive less in the way of government grants than do similar institutions in the United States and that they are unable to draw upon other resources to the same extent as their American counterparts. **Tuition fees are 70 or 80% higher at American public universities than at Ontario universities.** At American private universities, they are about six times as great as in Ontario. **Federal grants,**

largely for research, contribute twice the dollars per student at U.S. public universities and more than four times as much at private universities than they do in Ontario universities. Gifts and endowment income obtained by public universities in the United States are of about the same significance as in Ontario, but at private universities they bring in about four times as much revenue.

Impact on University Spending Patterns

Chronic underfunding affects all areas of our institutions. Tables 12 and 13 indicate that Ontario universities receive a lower share of both their operating funds and their total revenue from the provincial government than do universities in almost every other province. To offset a consistent lack of provincial government support, Ontario universities have had to obtain a higher proportion of their income from tuition and other fees and from other sources of income.

Table 14 demonstrates that **sponsored research expenditures have been growing at a faster rate than have the operating expenses more usually associated with instructional activity.** The former have increased by about 57 per cent in the past decade, once the impact of inflation is eliminated, while the latter expenses have barely increased enough to compensate for inflation and certainly have not increased enough to compensate for inflation and enrolment growth. All of this places additional strains on existing university facilities since sponsored research grants and contracts rarely cover the cost of overhead associated with the research activity.

Table 15 demonstrates that **there has been a 16% decline in the constant dollar value of salaries and wages per student over the past decade.** While Table 16 demonstrates an increase in the constant dollar value of employee benefits, it also shows that almost all of these additional costs were incurred in statutory benefits programmes over which universities have little or no control. The constant dollar costs of these statutory programmes increased by 40%. Unemployment insurance premium costs went up by 76% during the past decade. Figure 11 compares the cost of university benefit programmes

with those incurred by the Ontario government. **The provincial government's benefit package is significantly more expensive than that provided by universities.**

Figure 12 and Table 17 illustrate the extent to which inflation, historically, has been particularly severe for non-salary items purchased by universities. **For many years, the increase in the universities' non-salary price index exceeded the CPI by significant amounts.** In recent years, the rate of increase in the cost of non-salary items has diminished. The overall level of inflation in Ontario, however, has become a particularly pressing problem for Ontario universities. Figure 13 displays inflation rates in Ontario over the past year with those of Canada as a whole. **Current inflation of 5.8% and the Treasurer's projection of a 5.8% rate of inflation for 1989 as a whole stand in sharp contrast to the 4.0% increase in basic operating funds afforded to universities for 1989-90.**

In its operating grants for 1986-87, the Government made special provision for library acquisitions. As shown in Figure 14 and Table 18, this reversed a decade-long decline of 21 per cent in constant dollar expenses for library acquisitions (a 32 per cent decline when enrolment growth is taken into account).

Although significant improvements have been made in recent years (see Figure 15 and Table 19), the provision of capital funds for construction continues to be highly problematic. Table 20 demonstrates that, **in 1987-88, Ontario universities spent less per student on buildings and related land and site services than did universities in all but two other provinces in the country.** As a result of a long period of capital underfunding, as shown in Figure 16 and Table 21, Ontario university buildings have been depreciating faster than they were being renovated or replaced. For years, **universities have been living off their assets and not replacing what was being worn out.** In 1988, for the first time in recent memory, the value of capital formation of fixed assets exceed the value of depreciation.

Ontario Government Financial Resources

It is clearly evident that Ontario could afford to invest more in its universities. Table 22 indicates that the Ontario government raises less money per capita or as a share of provincial wealth than any other provincial government in the country. Table 23 suggests that this is also the case if local government revenues are taken into account. Figure 17 and Table 24 show that, although Ontario has the second highest tax capacity per capita in the country, its tax effort (when each province's deficit is taken into account) is the lowest in the country. A significant portion of Ontario government revenue is derived from the federal government via the transfer payments made through Established Programs Financing. As Figure 18 demonstrates, **the government's revenues from EPF over the past decade for postsecondary education have grown much faster than university expenditures.**

Despite Ontario's extremely low tax effort, the Ontario government consistently enjoys an operating surplus. As Figure 19 and Table 25 show, in ten of the past thirteen years, the Ontario government has been able to finance all of its operating expenditures plus a large part of its capital expenditures from taxes, transfers and other revenue. What borrowing takes place comes from the Canada Pension Plan and the Teachers' Superannuation Fund and is used exclusively to cover capital spending.

One of the Returns on the Investment

All of the above should be judged within the context of the continuing economic importance of the university sector. Figure 20 and Table 26 provide some evidence of the economic benefits derived from university training. Unemployment rates among university graduates are about one third the level of those who did not go beyond high school. Participation rates in the labour force are over twice as great for university graduates as for those with eight years or less of education.

FIGURES AND TABLES

FIGURE 1

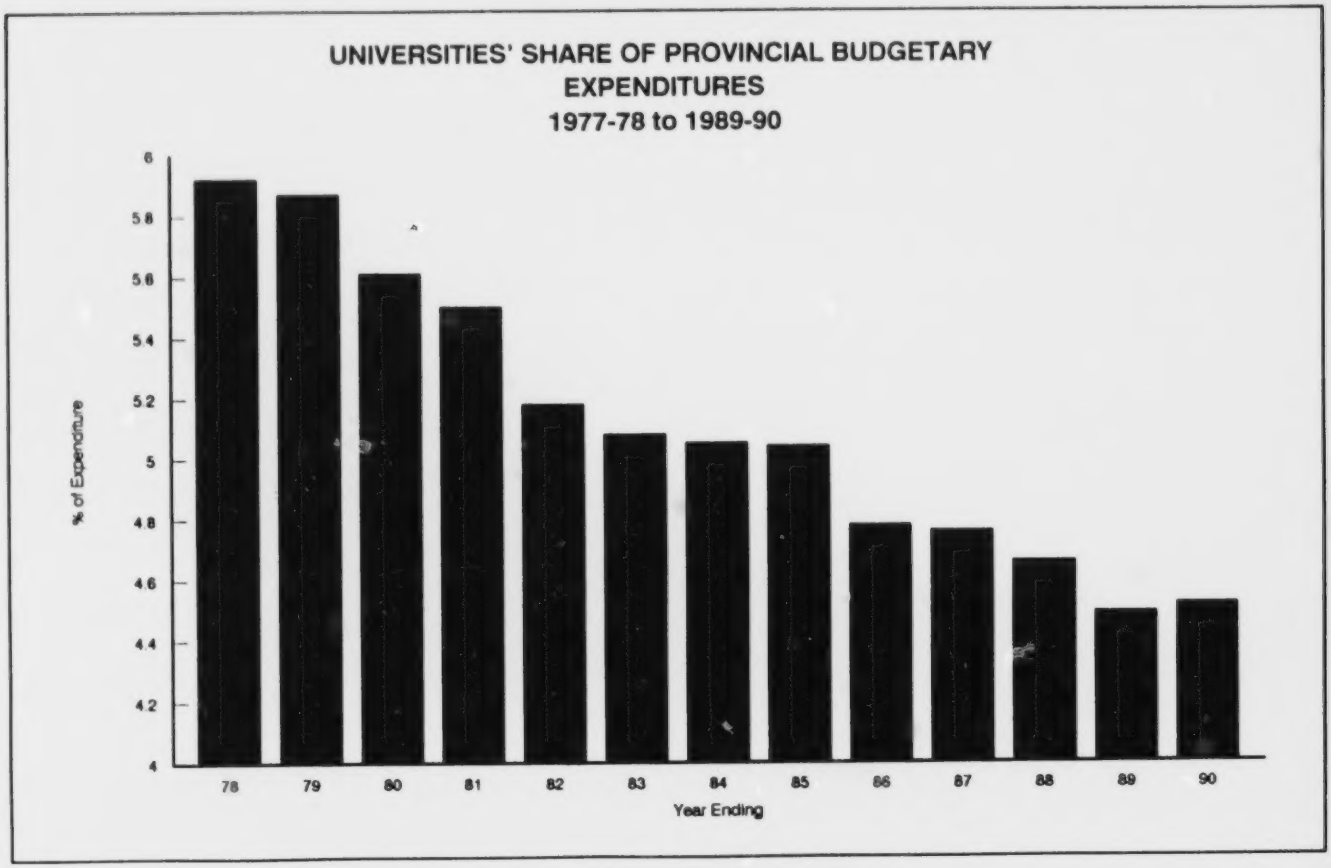
UNIVERSITIES' SHARE OF PROVINCIAL BUDGETARY EXPENDITURES
1977-78 to 1989-90
% of Expenditure
6
5.8
5.6
5.4
5.2
5
4.8
4.6
4.4
4.2
4
78
79
80
81
82
83
84
85
86
87
88
89
90
Year Ending

TABLE 1

ONTARIO UNIVERSITIES' SHARE OF PROVINCIAL BUDGETARY EXPENDITURES (EXCLUDING PUBLIC DEBT INTEREST PAYMENTS)

	Universities' Share	Universities' Annual Shortfall from 1977-78 Level of Government Support		Universities' Annual Shortfall from 1985-86 Level of Government Support	
	%	%	$ millions	%	$ millions
1977-78	5.92	-	-	-	-
1978-79	5.87	0.86	4.1	-	-
1979-80	5.61	5.22	40.5	-	-
1980-81	5.50	7.09	61.1	-	-
1981-82	5.18	12.44	127.8	-	-
1982-83	5.08	14.22	167.8	-	-
1983-84	5.05	14.62	186.4	-	-
1984-85	5.04	14.86	202.3	-	-
1985-86	4.78	19.26	297.2	-	-
1986-87	4.76	19.60	326.8	0.42	6.0
1987-88	4.66	21.32	387.5	2.55	38.4
1988-89 (interim)	4.49	24.19	490.0	6.11	101.6
1989-90 (budget)*	4.53	23.43	506.1	5.17	91.7

Source: Ontario, *Public Accounts*, various years.
1989-90 Expenditure Estimates
1989 Ontario Budget

* Estimates of total provincial budgetary expenditures have been consistently understated. This has resulted in consistently overestimating the universities' share of provincial budgetary expenditures.

FIGURE 2

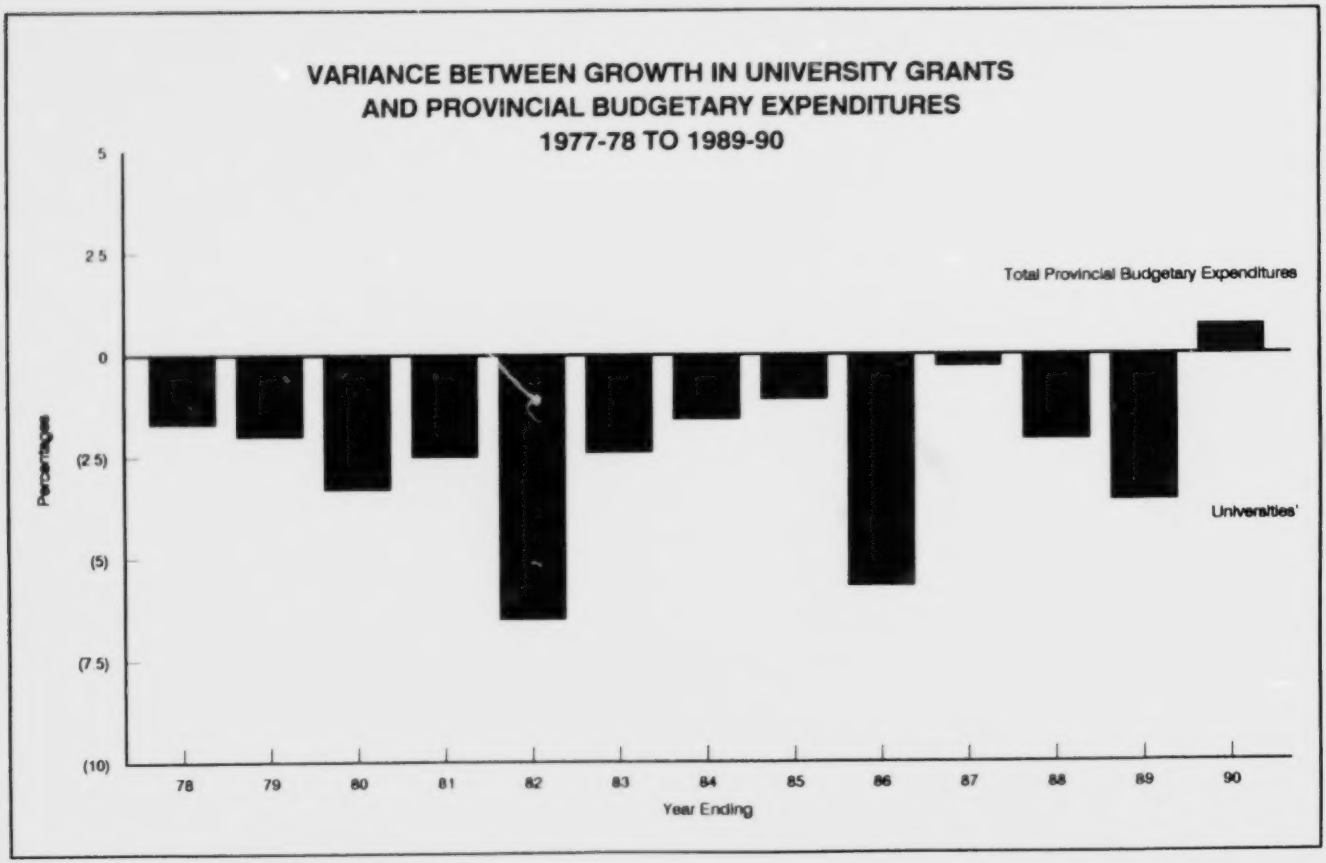
VARIANCE BETWEEN GROWTH IN UNIVERSITY GRANTS
AND PROVINCIAL BUDGETARY EXPENDITURES
1977-78 TO 1989-90
Percentages
5
2.5
0
(2.5)
(5)
(7.5)
(10)
Total Provincial Budgetary Expenditures
Universities'
78
79
80
81
82
83
84
85
86
87
88
89
90
Year Ending

TABLE 2

PERCENTAGE INCREASE IN PROVINCIAL OPERATING GRANTS AND TOTAL BUDGETARY EXPENDITURES 1977-78 TO 1989-90

	Operating Grants to Ontario Universities	Total Provincial Budgetary Expenditures	Universities Difference from Provincial Annual Increase
1977-78	8.4	10.1	(1.7)
1978-79	5.8	7.8	(2.0)
1979-80	5.1	8.4	(3.3)
1980-81	7.2	9.7	(2.5)
1981-82	10.2	16.7	(6.5)
1982-83	12.1	14.5	(2.4)
1983-84	7.5	9.1	(1.6)
1984-85	6.5	7.6	(1.1)
1985-86	5.1	10.8	(5.7)
1986-87	9.5	9.8	(0.3)
1987-88	6.5	8.6	(2.1)
1988-89(e)	7.2	10.7	(3.5)
1989-90(e)	7.9	7.3*	0.6
Average	7.6	10.1	(2.5)

Source: Province of Ontario, *Public Accounts*, various years.
Province of Ontario, *Expenditure Estimates, 1989-90*
Province of Ontario, *1989 Ontario Budget*

* Estimates of total provincial budgetary expenditure increases have been consistently understated. This has resulted in consistently underestimating the differences between increases in grants to universities, which do not change during the fiscal year, and increases in total provincial budgetary expenditures.

FIGURE 3

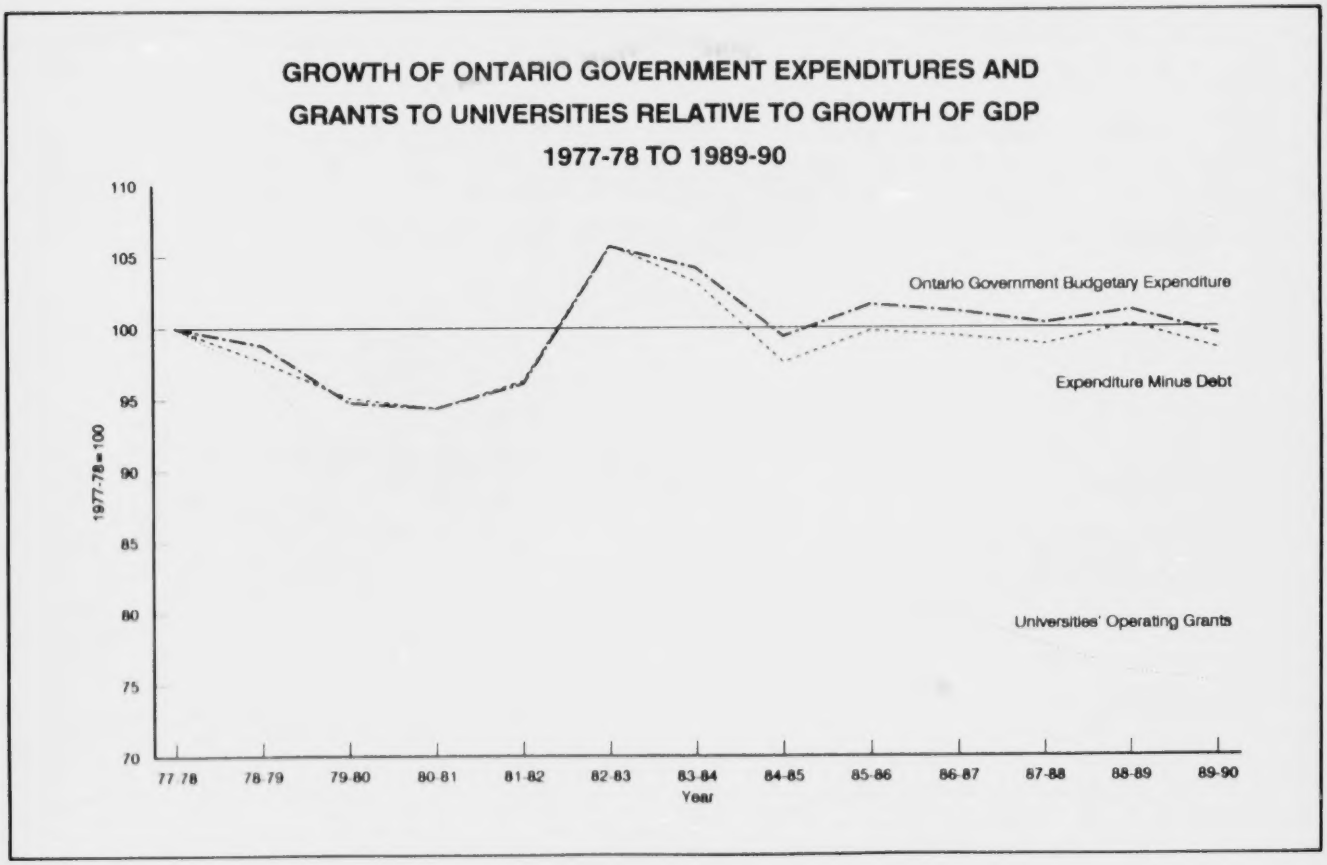
GROWTH OF ONTARIO GOVERNMENT EXPENDITURES AND
GRANTS TO UNIVERSITIES RELATIVE TO GROWTH OF GDP
1977-78 TO 1989-90
1977-78 = 100
110
105
100
95
90
85
80
75
70
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
Year
Ontario Government Budgetary Expenditure
Expenditure Minus Debt
Universities' Operating Grants

TABLE 3

GROWTH OF ONTARIO GOVERNMENT EXPENDITURES AND GRANTS TO UNIVERSITIES RELATIVE TO THE GROWTH OF GDP 1977-78 TO 1989-90

	GDP Index Values	Government Expenditures Index	Government Minus Debt Interest Index	Universities' Grants Index	Growth of Government vs. GDP	Government Minus Debt Interest vs. GDP	Growth of Universities' Grants vs. GDP
1977-78	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978-79	109.2	107.8	106.7	105.8	98.8	97.7	96.9
1979-80	123.3	116.9	117.2	111.1	94.8	95.1	90.2
1980-81	135.8	128.2	128.2	119.1	94.4	94.4	87.7
1981-82	155.7	149.7	149.9	131.3	96.1	96.3	84.3
1982-83	162.2	171.4	171.6	147.2	105.7	105.8	90.8
1983-84	179.5	187.0	185.2	158.2	104.2	103.2	88.1
1984-85	202.6	201.3	197.8	168.4	99.4	97.6	83.1
1985-86	219.6	223.1	219.1	176.9	101.6	99.8	80.6
1986-87	242.4	245.1	240.9	193.7	101.1	99.4	79.9
1987-88	265.4	266.1	262.2	206.3	100.3	98.8	77.7
1988-89	291.2	294.8	291.8	221.2	101.2	100.2	75.9
1989-90	316.0	314.5	311.3	237.4	99.5	98.5	75.1

Note: The first four columns of information measure the growth of the economy (as measured by the Gross Domestic Product), the growth of provincial government expenditures, the growth of those same expenditures but excluding public debt interest payments, and the growth of operating grants to universities. The last three columns compare the rates of growth of government expenditures (including and excluding debt payments) and grants to universities with the rate of growth of the economy. That is, an index value of 100.0 indicates an identical growth rate to that of the GDP, a lesser value indicates a lower rate of growth, and a value greater than 100.0 indicates a growth rate greater than the growth rate of the GDP.

Sources: *Public Accounts of Ontario*, various years
1989 Ontario Budget

FIGURE 4

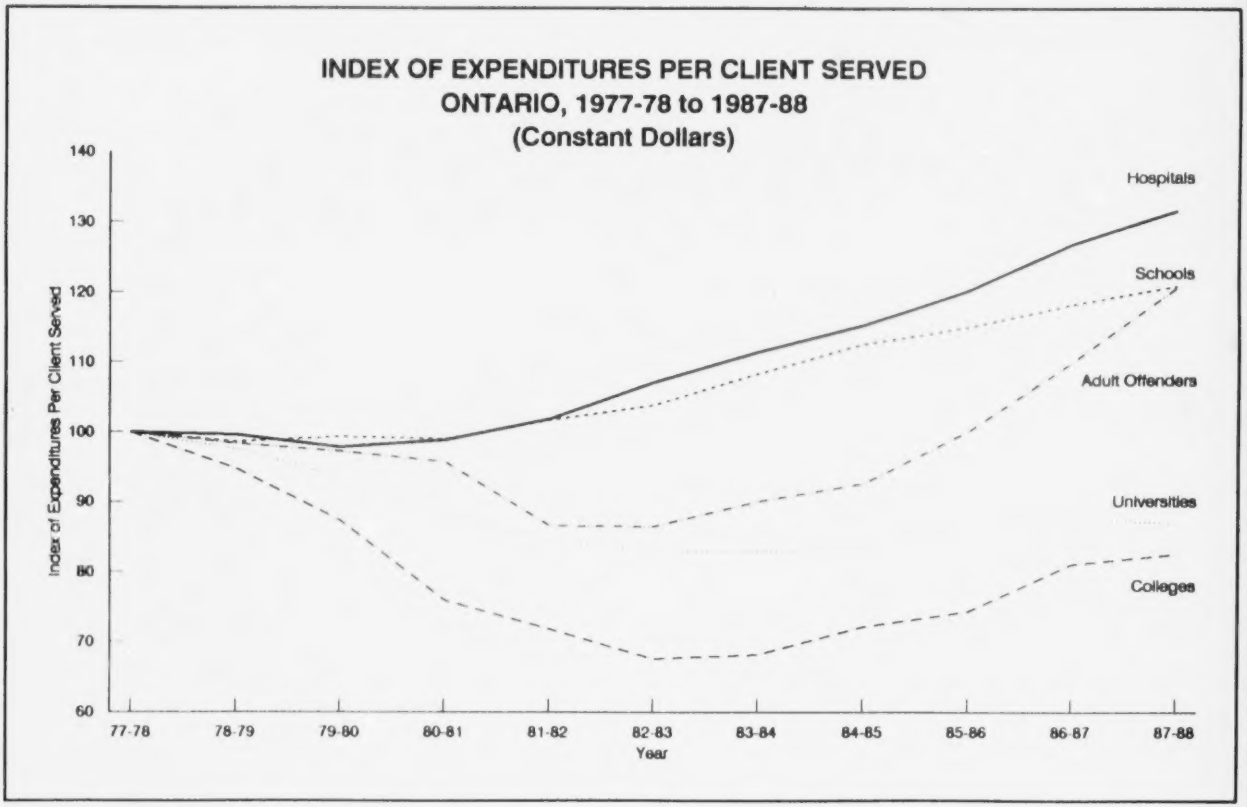
INDEX OF EXPENDITURES PER CLIENT SERVED
ONTARIO, 1977-78 to 1987-88
(Constant Dollars)
Index of Expenditures Per Client Served
140
130
120
110
100
90
80
70
60
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
Year
Hospitals
Schools
Adult Offenders
Universities
Colleges

TABLE 4

EXPENDITURES PER CLIENT SERVED, 1977-78 TO 1987-88

		1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
Elementary & Secondary Education (total school costs per pupil)1	Actual	$2,083	$2,240	$2,468	$2,735	$3,149	$3,517	$3,859	$4,168	$4,432	$4,741	$5,062
	Constant	2,083	2,053	2,071	2,064	2,119	2,164	2,258	2,348	2,398	2,464	2,521
	Index	100.0	98.6	99.4	99.1	101.7	103.9	108.4	112.7	115.1	118.3	121.0
Hospitals (gross operating costs per diem)2	Actual	$151.91	$165.06	$177.19	$199.15	$230.06	$264.67	$289.52	$311.06	$337.82	$370.80	$401.88
	Constant	151.91	151.29	148.65	150.30	154.82	162.87	169.41	175.25	182.80	192.72	200.14
	Index	100.0	99.6	97.9	98.9	101.9	107.2	111.5	115.4	120.3	126.9	131.7
CAATs (operating cost per provincially-funded FTE student)3	Actual	$3,949	$4,083	$4,113	$3,979	$4,222	$4,339	$4,602	$5,059	$5,428	$6,199	$6,548
	Constant	3,949	3,742	3,451	3,003	2,841	2,670	2,693	2,850	2,937	3,222	3,261
	Index	100.0	94.8	87.4	76.0	71.9	67.6	68.2	72.2	74.4	81.6	82.6
Adult Offenders (expenditure per inmate day)4	Actual	$47.50	$50.97	$55.09	$60.32	$61.22	$66.80	$73.16	$78.17	$87.83	$100.52	$115.10
	Constant	47.50	46.72	46.22	45.52	41.20	41.11	42.81	44.04	47.53	52.25	57.35
	Index	100.0	98.4	97.3	95.8	86.7	86.5	90.1	92.7	100.1	110.0	120.7
Universities (operating expense per FTE student)5	Actual	$4,723	$5,030	$5,277	$5,534	$5,929	$6,354	$6,697	$7,021	$7,557	$7,963	$8,252
	Constant	4,723	4,610	4,427	4,176	3,990	3,910	3,918	3,956	4,089	4,139	4,111
	Index	100.0	97.6	93.7	88.4	84.5	82.8	83.0	83.8	86.6	87.6	87.1

p = preliminary

Sources:
1. Ministry of Education.
2. Ministry of Health, Hospital Statistics, various years
3. Ministry of Colleges and Universities.
4. Ministry of Correctional Services
5. Ministry of Colleges and Universities, MCU Financial Report, various years; COU Special Committee on Macro-Indicators Ontario Universities Statistical Compendium, various years; and Council of Finance Officers - Universities of Ontario, Financial Report of Ontario Universities, various years.

FIGURE 5

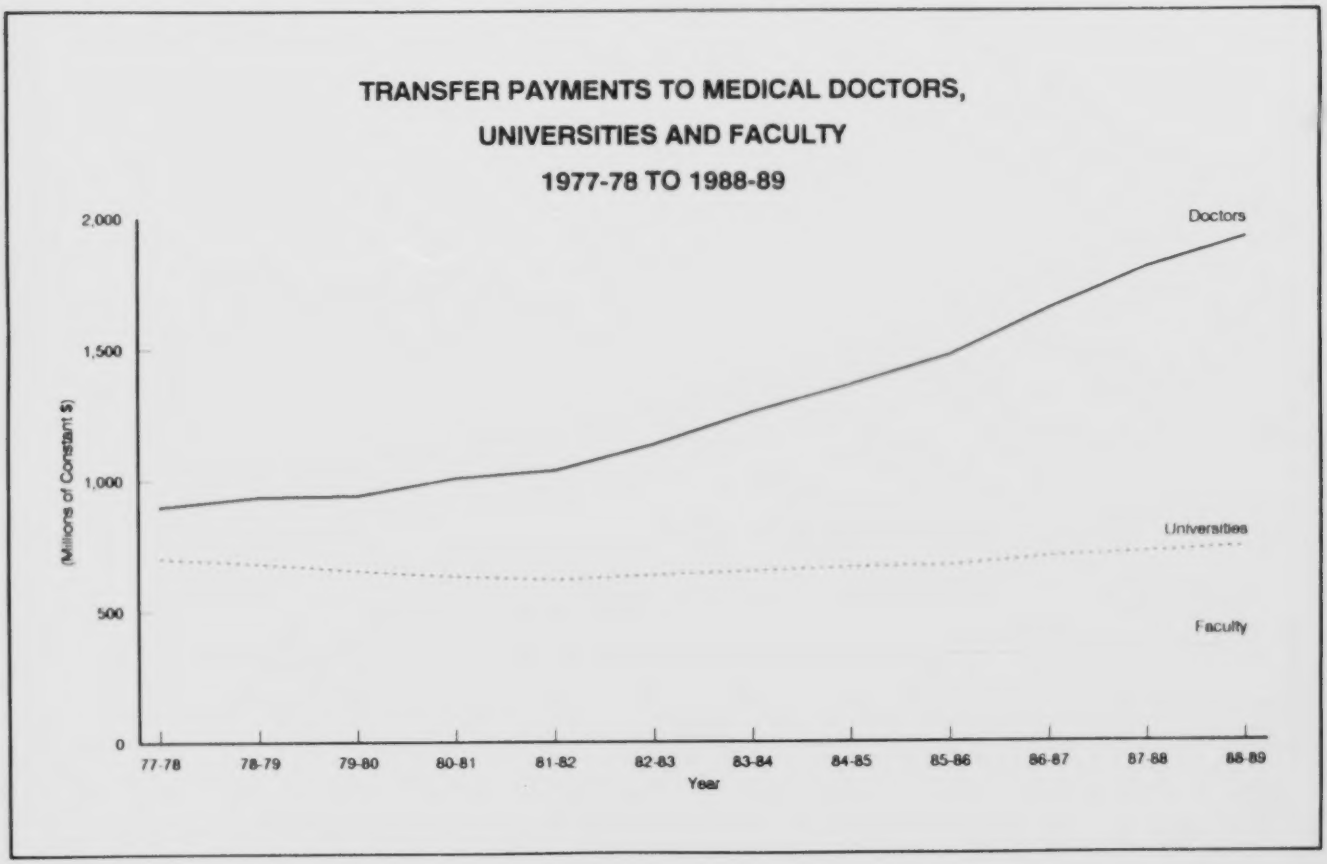
TRANSFER PAYMENTS TO MEDICAL DOCTORS,
UNIVERSITIES AND FACULTY
1977-78 TO 1988-89
2,000
1,500
1,000
500
0
(Millions of Constant $)
Doctors
Universities
Faculty
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
Year

TABLE 5

TRANSFER PAYMENTS TO MEDICAL DOCTORS, UNIVERSITIES, AND FACULTY, 1977-78 TO 1988-89
($MILLIONS)

	OHIP Payments to Physicians and Practitioners		Salaries of University Faculty With Academic Rank		Operating Grants to Universities	
	actual dollars	constant dollars	actual dollars	constant dollars	actual dollars	constant dollars
1977-78	$ 898.2	$ 898.2	$340.5	$340.5	$ 703.6	$703.6
1978-79	1,023.3	937.6	358.6	328.6	744.2	681.9
1979-80	1,122.0	941.2	378.1	317.2	781.9	655.9
1980-81	1,334.3	1,007.4	410.4	309.9	838.1	632.8
1981-82	1,543.0	1,038.3	460.1	309.6	923.5	621.4
1982-83	1,846.5	1,136.2	521.2	320.7	1,035.7	637.3
1983-84	2,149.3	1,257.9	556.7	325.8	1,112.8	651.3
1984-85	2,416.4	1,361.5	583.8	328.9	1,184.7	667.5
1985-86	2,723.7	1,474.1	617.8	334.4	1,244.8	673.7
1986-87	3,177.4	1,651.0	658.4	342.1	1,362.9	708.2
1987-88	3,628.2	1,806.9	706.9	352.1	1,451.6	722.9
1988-89 (est.)	4,020.9	1,920.2	-	-	1,557.5	743.8

Source: Ontario, *Public Accounts*, various years.
COFO-UO, *Financial Report of Ontario Universities*, various years.

FIGURE 6

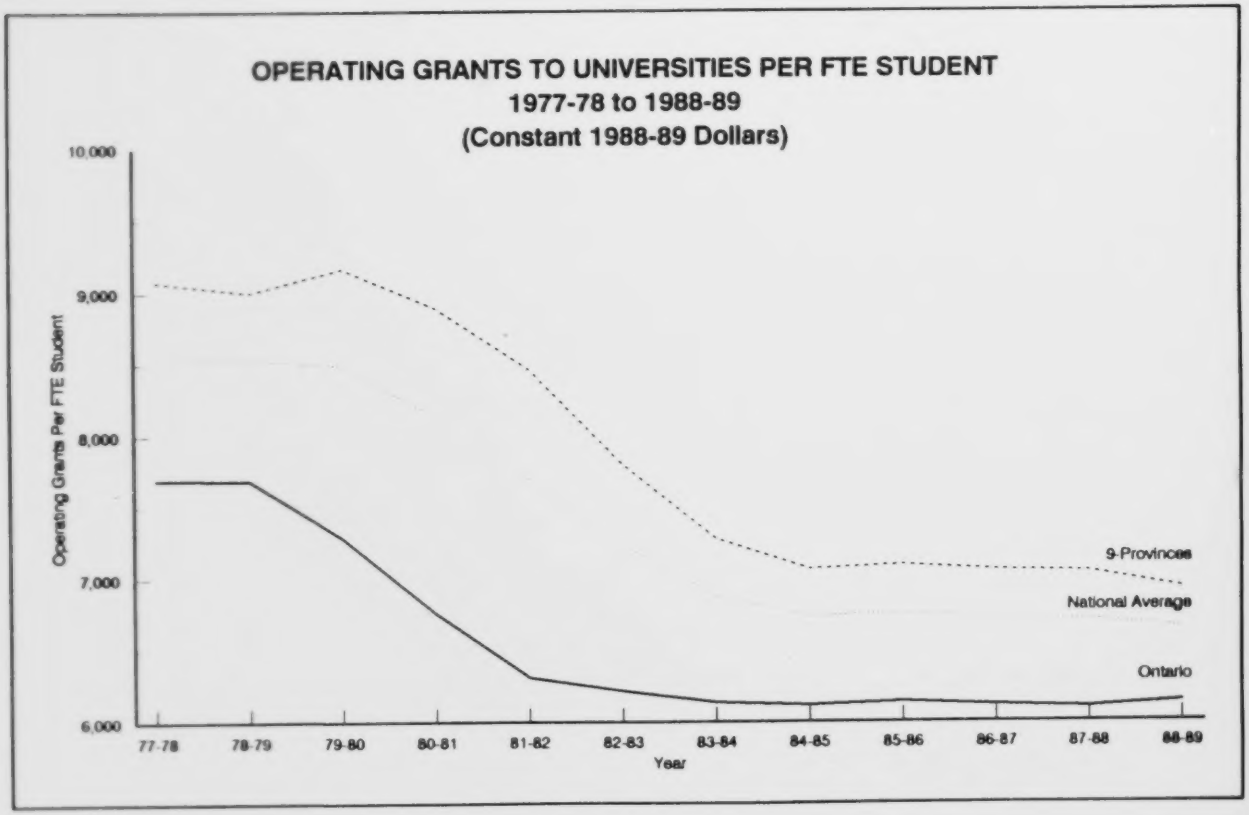
OPERATING GRANTS TO UNIVERSITIES PER FTE STUDENT
1977-78 to 1988-89
(Constant 1988-89 Dollars)
Operating Grants Per FTE Student
10,000
9,000
8,000
7,000
6,000
9 Provinces
National Average
Ontario
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
Year

TABLE 6

INTERPROVINCIAL COMPARISONS OF OPERATING GRANTS TO UNIVERSITIES PER FTE STUDENT 1977-78 TO 1988-89

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88e	1988-89e
British Columbia	$4,410 (4)	$4,903 (3)	$5,202 (4)	$5,528 (4)	$6,217 (2)	$6,193 (3)	$5,873 (4)	$5,810 (4)	$5,784 (8)	$5,988 (8)	$6,053 (8)	$6,150 (8)
Alberta	4,797 (1)	5,340 (2)	5,815 (2)	6,284 (1)	6,812 (1)	7,328 (1)	7,182 (2)	7,089 (1)	7,237 (1)	7,356 (1)	6,760 (3)	6,718 (5)
Saskatchewan	4,108 (5)	4,616 (5)	5,098 (5)	5,304 (5)	5,619 (5)	6,149 (4)	6,235 (3)	6,361 (3)	6,686 (3)	6,623 (4)	6,587 (5)	6,642 (6)
Manitoba	3,874 (7)	4,124 (7)	4,771 (6)	4,499 (7)	5,062 (6)	5,362 (6)	5,582 (6)	5,704 (6)	6,073 (6)	6,336 (6)	6,701 (4)	6,912 (3)
Quebec	4,449 (3)	4,657 (4)	5,299 (3)	5,935 (2)	6,176 (3)	5,915 (5)	5,713 (5)	5,800 (5)	6,172 (4)	6,444 (5)	7,090 (2)	7,358 (2)
New Brunswick	3,905 (6)	4,364 (6)	4,755 (7)	4,915 (6)	4,974 (7)	5,228 (7)	5,122 (7)	5,440 (7)	5,895 (7)	6,195 (7)	6,573 (6)	6,881 (4)
Nova Scotia	3,476 (9)	3,802 (9)	4,042 (10)	4,340 (9)	4,859 (8)	4,986 (9)	5,045 (9)	5,250 (9)	5,539 (9)	5,749 (9)	5,935 (9)	6,195 (7)
Prince Edward Island	3,030 (10)	3,544 (10)	4,246 (8)	4,430 (8)	4,712 (9)	5,012 (8)	5,075 (8)	5,270 (8)	6,075 (5)	6,759 (3)	6,475 (7)	6,005 (10)
Newfoundland	4,625 (2)	5,485 (1)	5,994 (1)	5,684 (3)	5,847 (4)	6,912 (2)	7,788 (1)	6,994 (2)	6,761 (2)	6,999 (2)	7,371 (1)	7,676 (1)
9 Provinces	4,329 -	4,686 -	5,209 -	5,618 -	6,001 -	6,049 -	5,931 -	5,986 -	6,255 -	6,482 -	6,756 -	6,931
Ontario (Rank)	**3,669 (8)**	**4,002 (8)**	**4,140 (9)**	**4,273 (10)**	**4,475 (10)**	**4,821 (10)**	**5,000 (10)**	**5,180 (10)**	**5,412 (10)**	**5,619 (10)**	**5,846 (10)**	**6,140 (9)**
Canada	$4,086 -	$4,443 -	$4,826 -	$5,138 -	$5,457 -	$5,614 -	$5,608 -	$5,704 -	$5,959 -	$6,179 -	$6,435	6,652

e = estimate

Source: Tripartite Committee on Interprovincial Comparisons
August 1989, for actual data.
COU Research Division for estimates.

TABLE 7

PROVINCIAL OPERATING GRANTS FOR UNIVERSITIES PER $1,000 OF PROVINCIAL PERSONAL INCOME

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88e	Rank 1987-88
British Columbia	$10.23	$10.10	$9.50	$8.92	$8.70	$8.53	$8.18	$7.45	$6.79	6.74	6.63	(10)
Alberta	13.83	12.68	11.57	10.50	9.80	10.50	10.96	11.10	10.45	10.52	9.81	(7)
Saskatchewan	12.49	12.03	11.59	11.18	9.88	10.10	10.53	10.43	9.98	9.33	9.07	(8)
Manitoba	13.18	11.87	12.17	11.19	10.50	11.14	11.74	10.79	10.37	10.16	9.99	(6)
Quebec	13.35	13.66	13.90	14.34	13.67	12.59	12.14	11.53	11.62	11.50	11.82	(3)
New Brunswick	14.06	13.93	13.64	13.31	12.75	12.70	12.36	11.92	11.82	11.78	11.81	(4)
Nova Scotia	15.71	15.12	14.27	14.58	14.35	13.94	13.77	13.35	13.00	12.67	12.49	(2)
Prince Edward Island	12.14	11.27	11.68	11.43	10.59	11.17	11.03	10.53	10.97	11.70	11.26	(5)
Newfoundland	14.70	14.57	14.40	14.20	14.05	13.75	13.32	12.91	13.05	13.52	13.31	(1)
9 Provinces	12.91	12.69	12.44	12.22	11.57	11.26	11.14	10.68	10.43	10.34	10.31	-
Ontario	**9.83**	**9.35**	**8.75**	**8.39**	**7.92**	**8.09**	**7.95**	**7.65**	**7.44**	**7.27**	**7.12**	-
(Rank)	**(10)**	**(10)**	**(10)**	**(10)**	**(10)**	**(10)**	**(10)**	**(9)**	**(9)**	**(9)**	**(9)**	-
Canada	11.70	11.39	11.01	10.76	10.20	10.06	9.91	9.49	9.25	9.11	9.02	-

e = estimate

Source: Tripartite Committee on Interprovincial Comparsions, August 1989, for actual data. COU Research Division for estimates.

TABLE 8

INTERPROVINCIAL COMPARISONS OF UNIVERSITY FINANCING
1986-87

	Indicators	Ontario	Rank	Average Of Rest Of Canada	Additonal Funding Required To Equal Rest of Canada	
					Total Required ($ millions)	Total Per Student $
1)	Provincial Operating Grants Per Student	$ 5,619	(10)	$ 6,482	$ 191.4	$ 864
2)	Provincial Operating Grants Per Capita	$ 135	(9)	$ 164	$ 260.0	$ 1,174
3)	Provincial Operating Grants plus Student Aid Per Capita	$ 144	(9)	$ 177	$ 302.5	$ 1,366
4)	Provincial Operating Grants plus Fees Per Student	$ 7,135	(9)	$ 7,387	$ 55.8	252
5)	Total Operating Income Per Student	$ 7,607	(10)	$ 8,076	$ 103.8	468
6)	Provincial Operating Grants plus Student Aid As A percentage Of Gross General Expenditures	3.85%	(3)	3.66%	($ 66.6)	($ 301)
7)	Provincial Operating Grants Per $1,000 Of Provincial Personal Income	$ 7.27	(9)	$ 10.34	$ 526.7	$ 2,378
8)	Total University Operating Expenditures As A percentage Of Provincial Gross Domestic Product	0.82%	(9)	1.13%	$ 627.8	$ 2,834

Source: Tripartite Committee on Interprovincial Comparisons, August 1989.

TABLE 9

INTERPROVINCIAL COMPARISONS OF TOTAL OPERATING EXPENSES PER CLIENT

	HOSPITALS Total Operating Expenses Per Patient Day 1986-87		SCHOOLS School Board Expenditures Per Student 1986		UNIVERSITIES Total Operating Expenditures Per Student 1986-87	
British Columbia	269.71	(8)	4,167	(6)	8,166	(5)
Alberta	332.67	(5)	4,765	(2)	9,372	(2)
Saskatchewan	279.01	(7)	4,305	(5)	8,563	(3)
Manitoba	388.81	(1)	4,566	(4)	7,734	(9)
Ontario	**367.18**	**(4)**	**4,734**	**(3)**	**7,590**	**(10)**
Quebec	256.72	(10)	5,430	(1)	7,936	(7)
New Brunswick	291.92	(6)	4,039	(7)	7,818	(8)
Nova Scotia	385.98	(2)	3,797	(8)	7,941	(6)
P.E.I.	261.22	(9)	3,410	(9)	9,810	(1)
Newfoundland	378.82	(3)	3,218	(10)	8,488	(4)

Source: Statistics Canada, Hospital Statistics - Preliminary
Statistics Canada, Financial Statistics of Education
Tripartite Committee on Interprovincial Comparisons, Interprovincial Comparisons of University Financing.

FIGURE 7

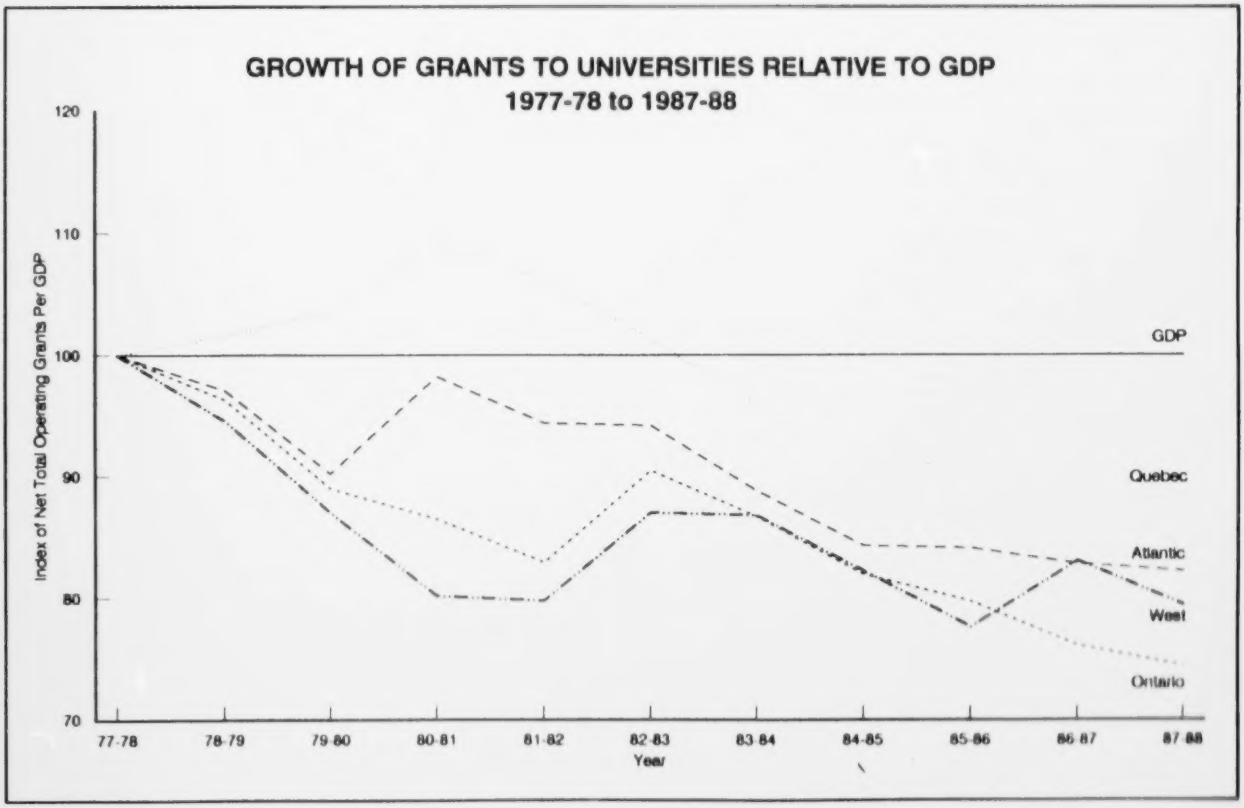
GROWTH OF GRANTS TO UNIVERSITIES RELATIVE TO GDP
1977-78 to 1987-88
Index of Net Total Operating Grants Per GDP
120
110
100
90
80
70
GDP
Quebec
Atlantic
West
Ontario
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
Year

TABLE 10

GDP ELASTICITY BY PROVINCE, 1977-78 TO 1987-88
(GROWTH RATES OF PROVINCIAL OPERATING GRANTS TO UNIVERSITIES AS A RATIO OF GDP GROWTH)

	1977-78 to 1981-82	1981-82 to 1985-86	1985-86 to 1987-88	1977-78 to 1987-88	Rank
British Columbia	0.700	-0.082	0.687	0.448	(10)
Alberta	0.476	1.390	-0.268	0.782	(5)
Saskatchewan	0.567	1.434	172.211	0.809	(4)
Manitoba	0.510	1.078	0.817	0.693	(7)
Quebec	1.174	0.442	0.817	0.810	(3)
New Brunswick	0.832	0.668	0.799	0.701	(6)
Nova Scotia	0.869	0.572	0.693	0.642	(8)
Prince Edward Island	0.664	1.315	1.022	0.894	(1)
Newfoundland	0.836	0.777	1.177	0.843	(2)
9 - Provinces	0.785	0.653	1.074	0.738	--
Ontario	**0.522**	**0.869**	**0.615**	**0.590**	**(9)**
Canada	0.720	0.713	0.821	0.679	--

Note: In this table, "elasticity" refers to the growth of operating grants to universities relative to the growth of the economy. The table demonstrates that as the economy, stated in terms of Gross Domestic Product, expands or contracts, then operating grants to universities will expand or contract at a ratio greater or lesser than 1.00. That is, if provincial grants to universities are increasing at a faster rate than the GDP, this table will reflect elasticities greater than 1.00. If grants are increasing at a slower rate than the GDP, elasticities will be less than 1.00. If grants to universities actually decline, elasticities will usually equal a negative value.

Sources: Statistics Canada
Tripartite Committee on Interprovincial Comparisons.

FIGURE 8

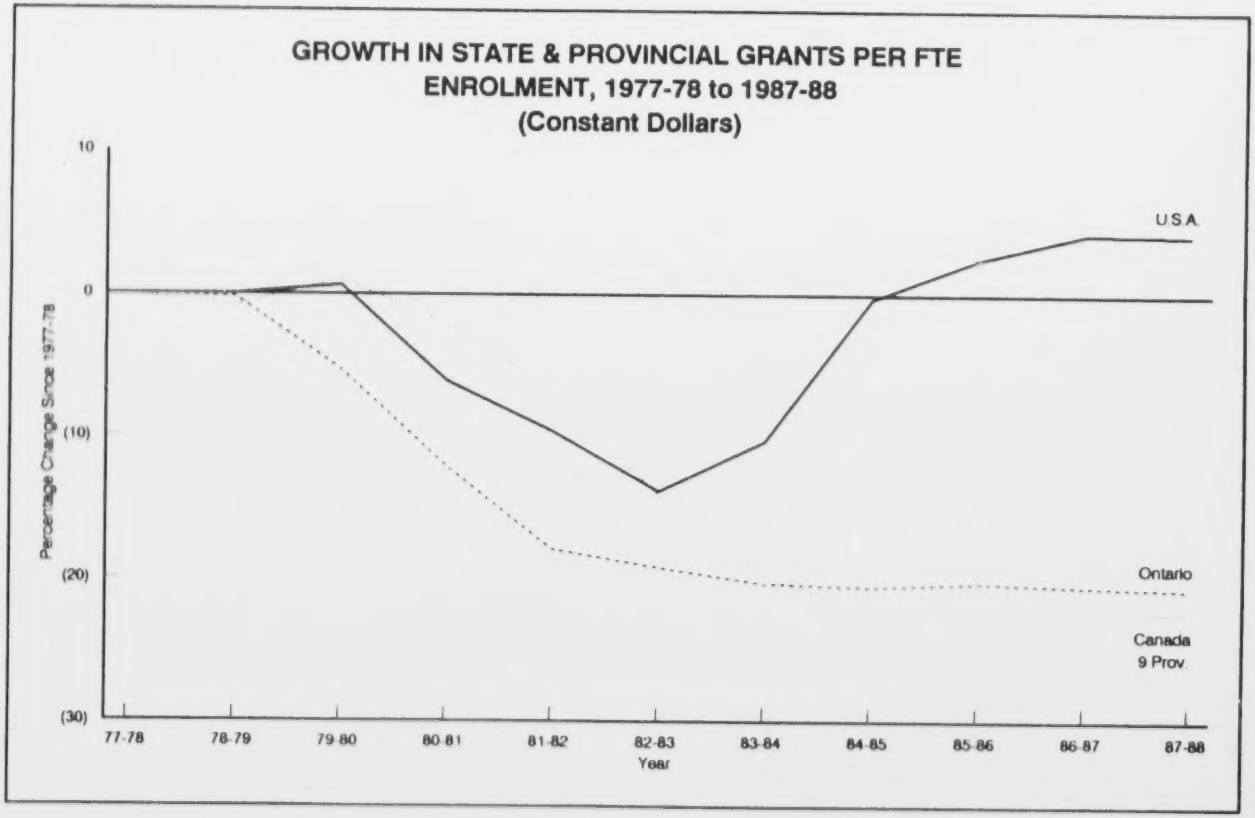
GROWTH IN STATE & PROVINCIAL GRANTS PER FTE
ENROLMENT, 1977-78 to 1987-88
(Constant Dollars)
Percentage Change Since 1977-78
10
0
(10)
(20)
(30)
U.S.A.
Ontario
Canada
9 Prov.
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
Year

FIGURE 9

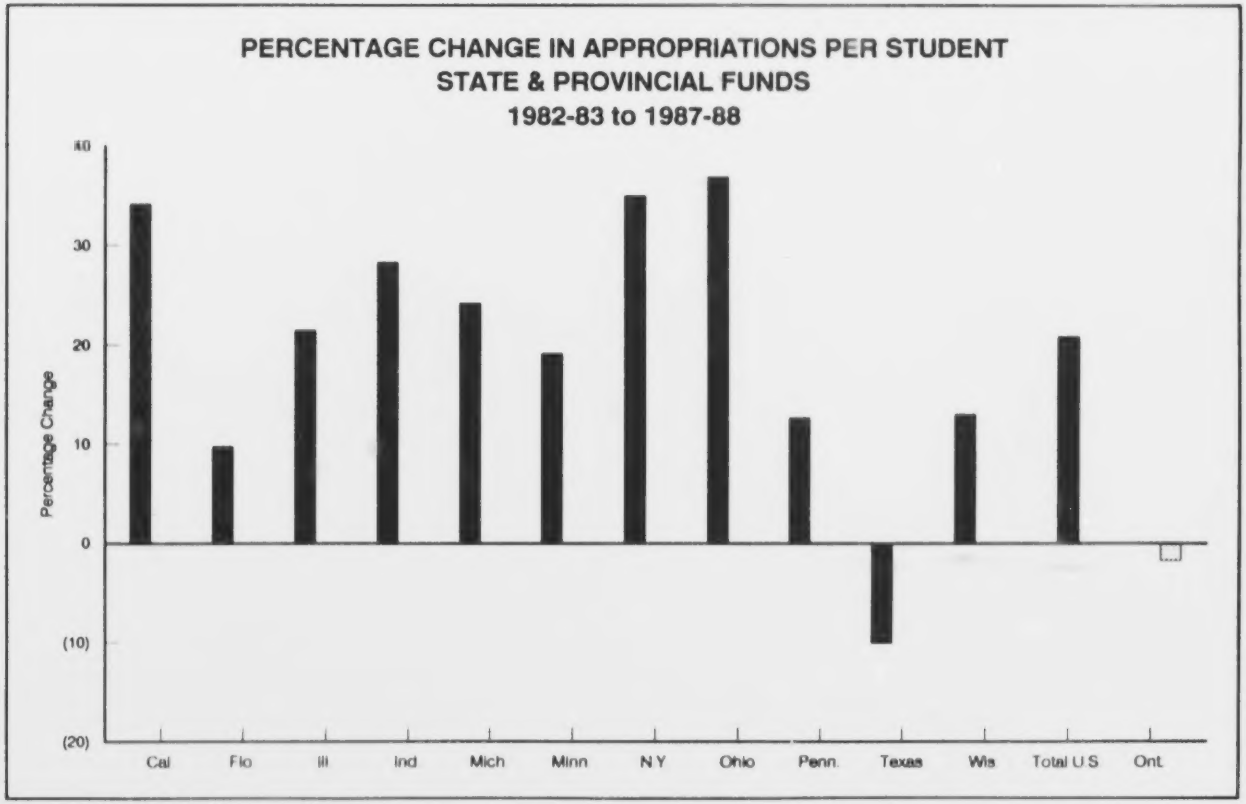
PERCENTAGE CHANGE IN APPROPRIATIONS PER STUDENT
STATE & PROVINCIAL FUNDS
1982-83 to 1987-88
Percentage Change
40
30
20
10
0
(10)
(20)
Cal
Flo
Ill
Ind
Mich
Minn
N.Y
Ohio
Penn
Texas
Wis
Total U.S
Ont

FIGURE 10

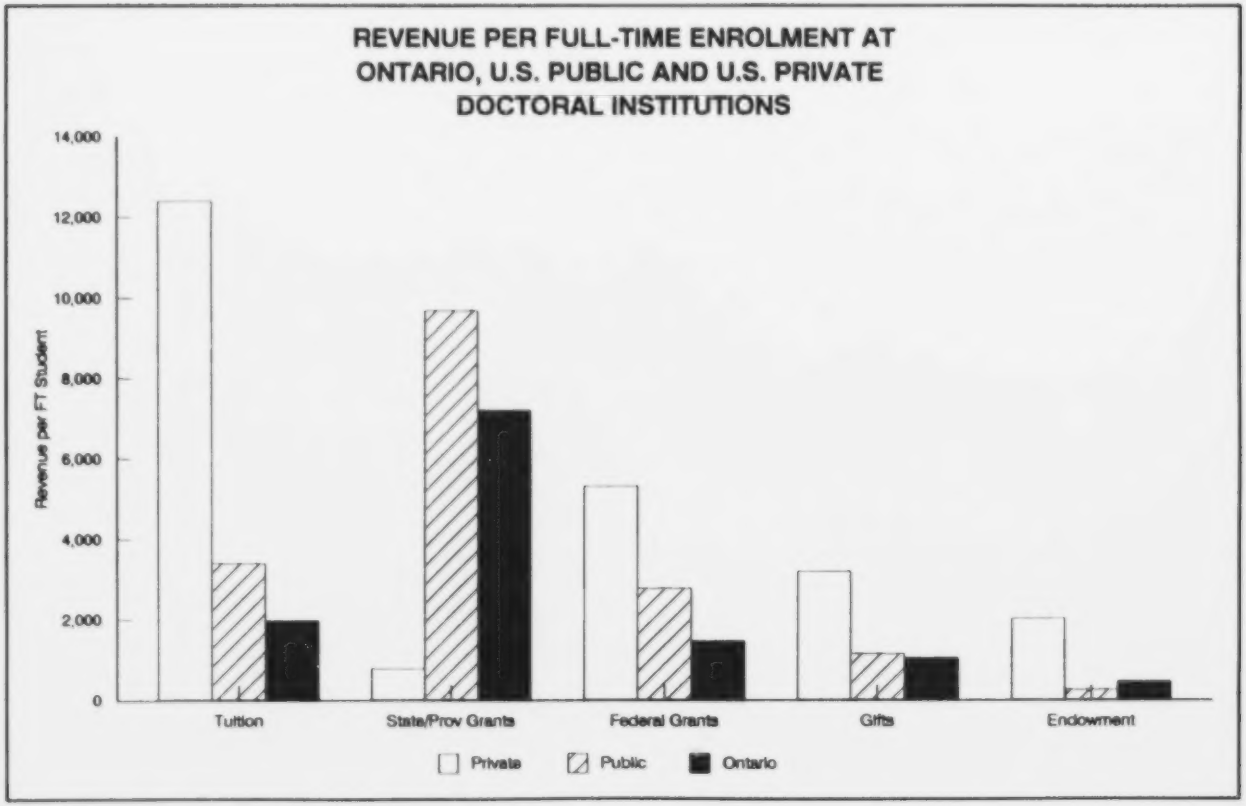
REVENUE PER FULL-TIME ENROLMENT AT ONTARIO, U.S. PUBLIC AND U.S. PRIVATE DOCTORAL INSTITUTIONS
Revenue per FT Student
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Tuition
State/Prov Grants
Federal Grants
Gifts
Endowment
Private
Public
Ontario

TABLE 11

REVENUE PER FULL-TIME ENROLMENT AT DOCTORAL LEVEL UNIVERSITIES, 1985-86 ($Cdn)

	United States		
	Private	Public	Ontario
Tuition & Fees Per F.T. Student	$12,397	$3,402	$1,978
State/Provincial Appropriations Per F.T. Student	774	9,668	7,200
Federal Grants Per F.T. Student	5,316	2,772	1,459
Gifts Per F.T. Student	3,194	1,139	1,040
Endowment Income Per F.T. Student	2,024	258	455

Source: National Center for Higher Education Management Studies, *Financial Statistics*.
Council of Finance Officers - Universities of Ontario, *Financial Report of Ontario Universities 1985-86*.

TABLE 12

PERCENTAGE OF UNIVERSITIES' GENERAL OPERATING INCOME, 1987-88

	Provincial Government Grants		Tuition Fees Credit Courses		Other Operating Income		Total Operating Income
	%	Rank	%	Rank	%	Rank	%
British Columbia	77.7	(7)	16.6	(4)	5.8	(2)	100.0
Alberta	84.2	(3)	11.4	(9)	4.4	(6)	100.0
Saskatchewan	77.8	(6)	15.0	(5)	7.2	(1)	100.0
Manitoba	82.3	(5)	13.2	(7)	4.5	(5)	100.0
Quebec	89.3	(1)	6.7	(10)	4.0	(8)	100.0
New Brunswick	76.3	(9)	19.5	(1)	4.2	(7)	100.0
Prince Edward Island	84.6	(2)	14.0	(6)	1.4	(10)	100.0
Nova Scotia	75.7	(10)	19.0	(2)	5.3	(4)	100.0
Newfoundland	83.8	(4)	13.1	(8)	3.1	(9)	100.0
9 Provinces	83.9	-	11.5	-	4.6	-	100.0
Ontario	**76.7**	**(8)**	**17.6**	**(3)**	**5.7**	**(3)**	**100.0**
Canada	81.1	-	13.9	-	5.0	-	100.0

Source: Canadian Association of University Business Officers, *Financial Statistics of Universities and Colleges 1987-88*

TABLE 13

PERCENTAGE OF UNIVERSITIES' TOTAL INCOME EXCLUDING ANCILLARY ENTERPRISES, 1987-88

	Provincial Government Grants		Total Fees		Other Income		Total Income
	%	Rank	%	Rank	%	Rank	%
British Columbia	62.1	(9)	14.2	(4)	23.7	(2)	100.0
Alberta	71.8	(4)	9.6	(9)	18.6	(7)	100.0
Saskatchewan	69.3	(5)	11.6	(5)	19.1	(5)	100.0
Manitoba	68.6	(6)	11.2	(6)	20.2	(4)	100.0
Quebec	74.9	(3)	6.4	(10)	18.7	(6)	100.0
New Brunswick	67.5	(7)	16.2	(2)	16.3	(8)	100.0
Prince Edward Island	81.1	(1)	11.2	(7)	7.7	(10)	100.0
Nova Scotia	59.3	(10)	16.7	(1)	24.0	(1)	100.0
Newfoundland	75.2	(2)	10.8	(8)	14.0	(9)	100.0
9 Provinces	70.5	-	10.0	-	19.5	-	100.0
Ontario	**63.2**	**(8)**	**15.4**	**(3)**	**21.4**	**(3)**	**100.0**
Canada	67.7	-	12.0	-	20.3	-	100.0

Source: Canadian Association of University Business Officers, *Financial Statistics of Universities and Colleges 1987-88.*

TABLE 14

COSTS OF SPONSORED RESEARCH AND THE OPERATING BASE 1977-78 TO 1987-88

	Sponsored Research Expenses		Operating Expenses	
	Constant Dollars (1977-78)	Percentage Growth from 1977-78	Constant Dollars (1977-78)	Percentage Growth from 1977-78
1977-78	125,627	-	868,333	-
1978-79	132,588	+ 5.5	836,796	-3.6
1979-80	136,210	+ 8.4	808,065	-6.9
1980-81	141,227	+12.4	788,625	-9.2
1981-82	154,541	+23.0	789,501	-9.1
1982-83	170,916	+36.1	816,852	-5.9
1983-84	173,939	+38.5	845,566	-2.6
1984-85	186,000	+48.1	857,329	-1.3
1985-86	188,688	+50.2	878,199	+1.1
1986-87	187,471	+49.2	890,937	+2.6
1987-88	196,733	+56.6	909,175	+4.7

Source: COFO-UO, Financial Report of Ontario Universities, various years.

TABLE 15

SALARIES AND WAGES, ONTARIO UNIVERSITIES, 1977-78 TO 1987-88
(1977-78 $ CONSTANT)

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
Academic Ranks											
Constant Dollars ($000)	$340,465	$328,527	$317,209	$309,829	$309,579	$320,583	$325,807	$328,848	$334,356	$342,122	$352,045
Constant Dollars Per FTE Enrolment	100.0	96.3	92.4	87.2	83.1	81.5	80.3	80.6	82.6	84.2	84.2
Other Instruction and Research											
Constant Dollars ($000)	$38,248	$35,519	$34,742	$34,451	$33,448	$33,441	$33,542	$33,806	$34,892	$35,109	$35,757
Constant Dollars Per FTE Enrolment	100.0	92.7	90.1	86.3	79.9	75.7	73.6	73.7	76.7	76.9	76.2
Non-Academic Staff											
Constant Dollars ($000)	$250,779	$240,317	$226,186	$218,856	$219,392	$226,513	$236,889	$240,495	$248,165	$250,697	$257,755
Constant Dollars Per FTE Enrolment	100.0	95.7	89.4	83.7	80.0	78.2	79.2	80.0	83.2	83.7	83.7
Total Salaries and Wages											
Constant Dollars ($000)	$629,492	$604,363	$578,137	$563,136	$562,419	$580,537	$596,238	$603,150	$617,413	$627,928	$645,556
Constant Dollars Per FTE Enrolment	100.0	95.9	91.1	85.7	81.7	79.9	79.4	79.9	82.5	83.6	83.6

Source: COFO-UO, Financial Report of Ontario Universities, various years

TABLE 16

COMPARSION OF BENEFIT COSTS
1977-78 TO 1988-89
($000 CONSTANT 1977-78 DOLLARS)
(EXCLUDING OCA, ALGOMA, NIPISSING, HEARST)

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
Statutory Benefits												
O.H.I.P.	5,821	6,098	5,423	4,646	4,736	5,368	5,316	5,469	5,355	5,247	5,118	5,111
Canada Pension	5,906	5,768	5,644	5,578	5,549	5,864	5,987	6,252	6,608	7,230	7,445	7,921
Worker's Compensation	948	846	826	776	927	1,058	1,102	1,288	1,504	1,684	1,929	2,061
Unemployment Insurance	7,250	6,605	5,504	6,356	7,649	8,831	11,307	11,843	12,431	12,773	13,130	12,793
Total Statutory Benefits	19,925	19,318	17,397	17,356	18,861	21,120	23,712	24,851	25,898	26,933	27,622	27,886
Non-Statutory Benefits												
Pension												
- Current Service	36,003	35,681	34,838	33,365	33,946	36,010	37,169	36,996	38,022	36,743	40,214	42,941
- Experience Deficiency	1,513	1,660	415	138	262	260	188	174	(103)	(102)	(98)	(302)
- Past Service Liability	3,466	3,251	2,038	654	99	327	410	518	0	47	77	72
Group Life Insurance	3,837	3,463	3,294	2,981	2,622	2,811	2,897	2,720	2,830	2,803	2,982	3,178
Long Term Disability	1,805	1,874	1,843	2,292	2,179	2,439	2,709	2,654	2,758	2,768	2,881	2,854
Dental Insurance	1,222	1,939	1,925	2,245	2,920	3,310	3,437	3,757	4,287	4,703	5,097	5,284
Extended Health Care	1,079	941	898	1,253	1,396	1,751	2,090	2,399	2,791	3,043	3,331	3,784
Tuition Remission	479	879	1,420	1,437	1,770	1,802	1,974	2,299	2,342	2,302	2,303	2,363
Other	485	434	518	495	654	618	435	244	680	(1,724)	(10,058)	(10,061)
Total Non-Statutory Benefits	49,890	50,123	47,189	47,860	45,848	49,327	51,311	51,761	53,608	50,584	46,729	50,114
Total Benefits	69,815	69,441	64,586	62,216	64,709	70,447	75,022	76,612	79,506	77,517	74,350	78,000

FIGURE 11

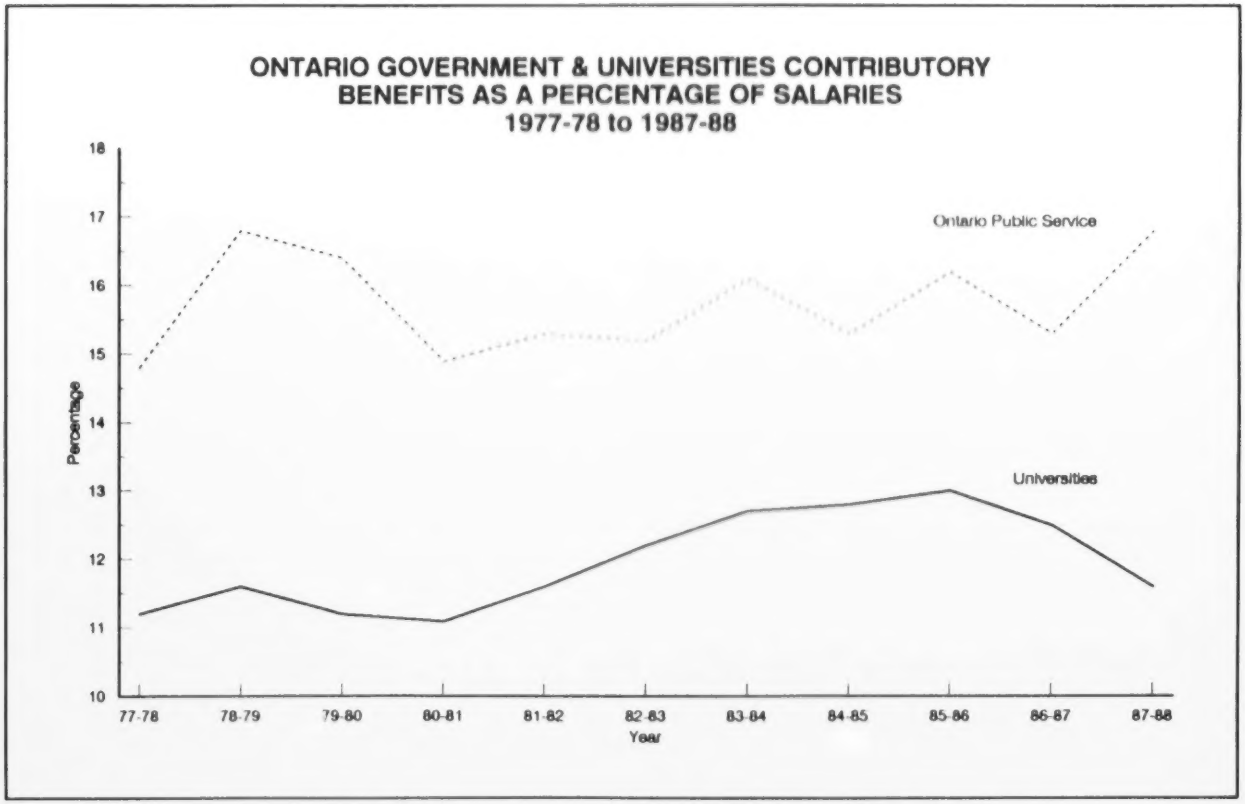
ONTARIO GOVERNMENT & UNIVERSITIES CONTRIBUTORY
BENEFITS AS A PERCENTAGE OF SALARIES
1977-78 to 1987-88
Ontario Public Service
Universities
Percentage
18
17
16
15
14
13
12
11
10
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
Year

FIGURE 12

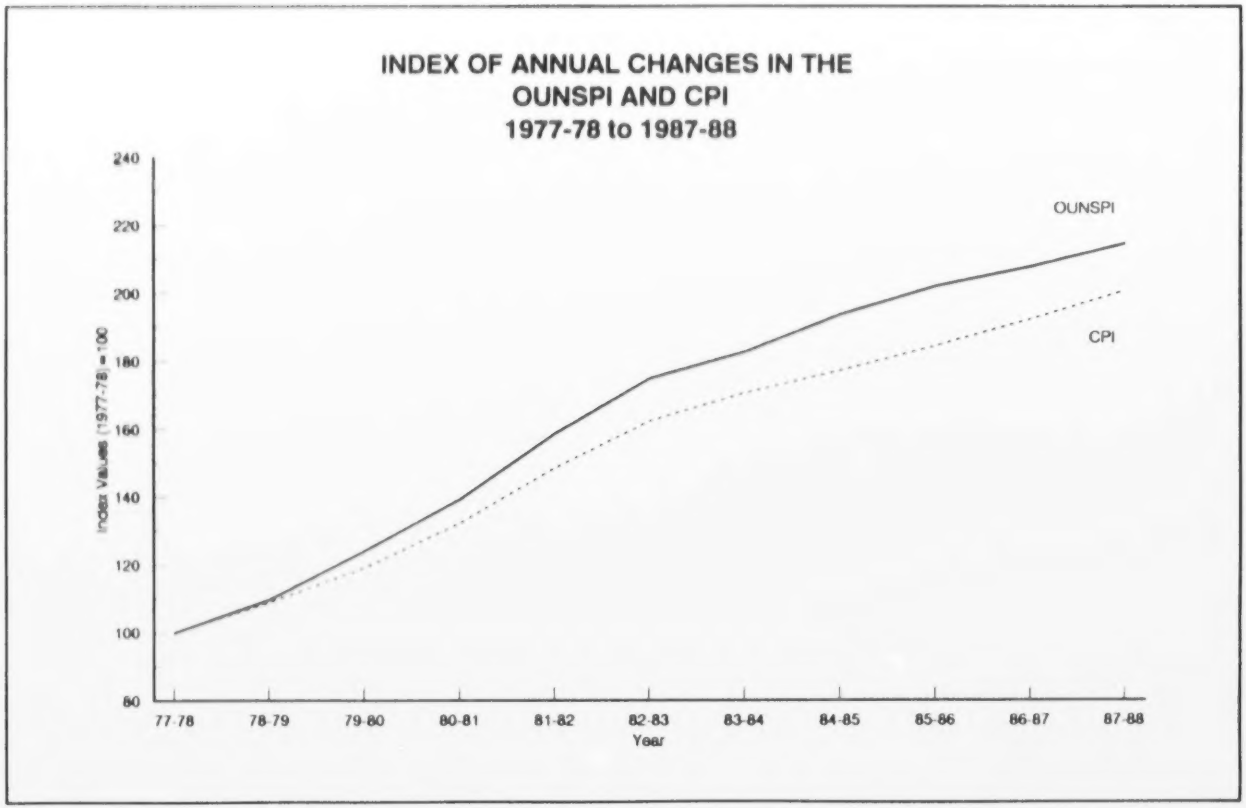
INDEX OF ANNUAL CHANGES IN THE
OUNSPI AND CPI
1977-78 to 1987-88
240
220
200
180
160
140
120
100
80
Index Values (1977-78) = 100
OUNSPI
CPI
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
Year

TABLE 17

CONSUMER PRICE INDEX AND THE ONTARIO UNIVERSITY NON SALARY PRICE INDEX (1986 REVISION 1980-81 = 100)

Year	OUNSPI	CPI	OUNSPI Annual % Increase	CPI Annual % Increase
Actual				
1970-71	37.8	44.7	-	-
1971-72	39.5	46.4	4.4	3.9
1972-73	40.8	48.8	3.4	5.1
1973-74	45.4	53.1	11.2	8.9
1974-75	52.9	59.2	16.6	11.4
1975-76	58.6	65.1	10.9	10.0
1976-77	63.9	69.5	8.9	6.8
1977-78	71.8	75.5	12.3	8.6
1978-79	78.8	82.4	9.9	9.1
1979-80	89.1	90.0	13.1	9.2
1980-81	100.0	100.0	12.2	11.2
1981-82	113.9	112.2	13.9	12.2
1982-83	125.5	122.7	10.2	9.4
1983-84	131.2	129.0	4.5	5.1
1984-85	139.0	134.0	6.0	3.9
1985-86	145.2	139.5	4.4	4.1
1986-87	149.2	145.4	2.8	4.2
1987-88	154.1	151.6	3.3	4.3
1988-89e	160.9	158.3	4.4	4.4

e = estimate

FIGURE 13

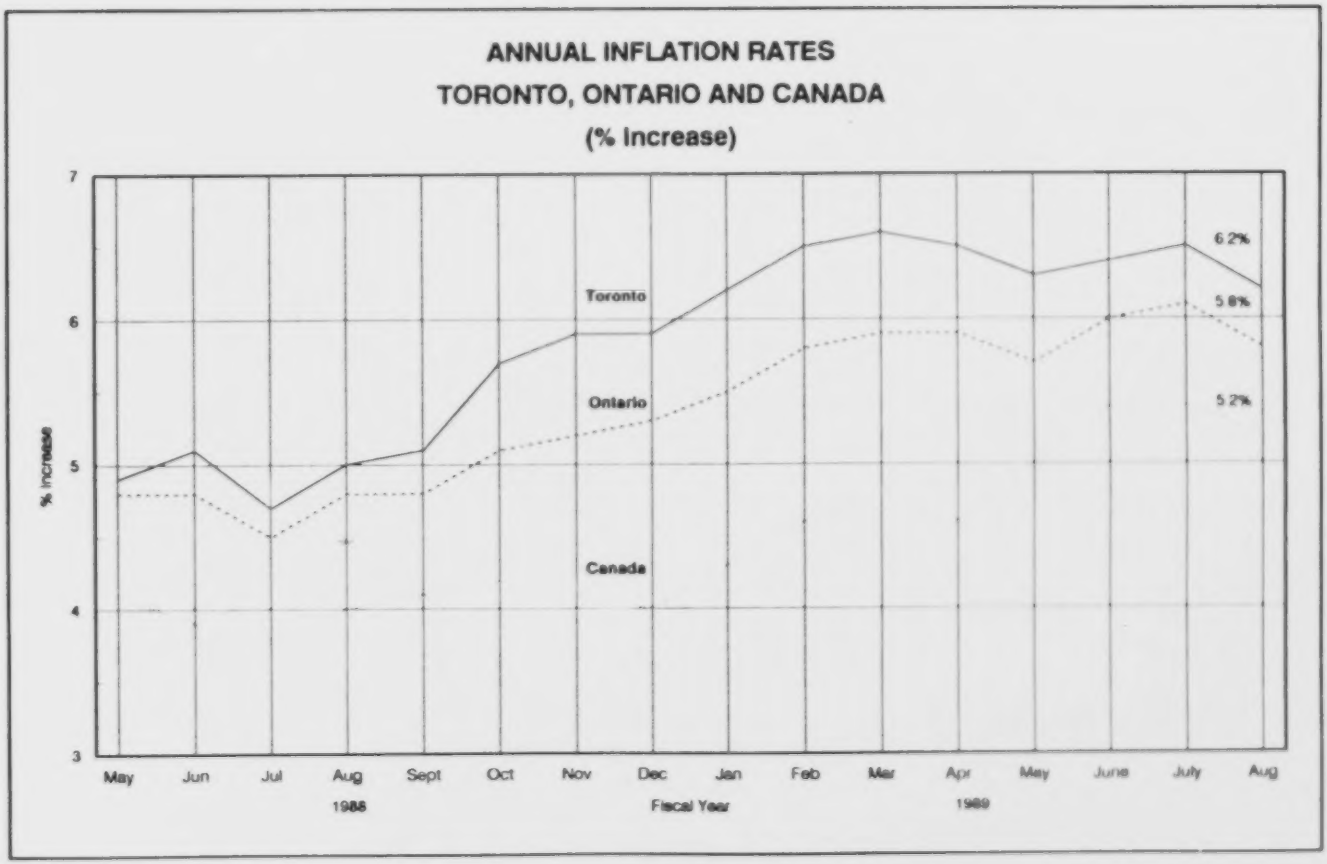
ANNUAL INFLATION RATES
TORONTO, ONTARIO AND CANADA
(% Increase)
% Increase
7
6
5
4
3
Toronto
Ontario
Canada
6.2%
5.8%
5.2%
May
Jun
Jul
Aug
Sept
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
June
July
Aug
1988
Fiscal Year
1989

FIGURE 14

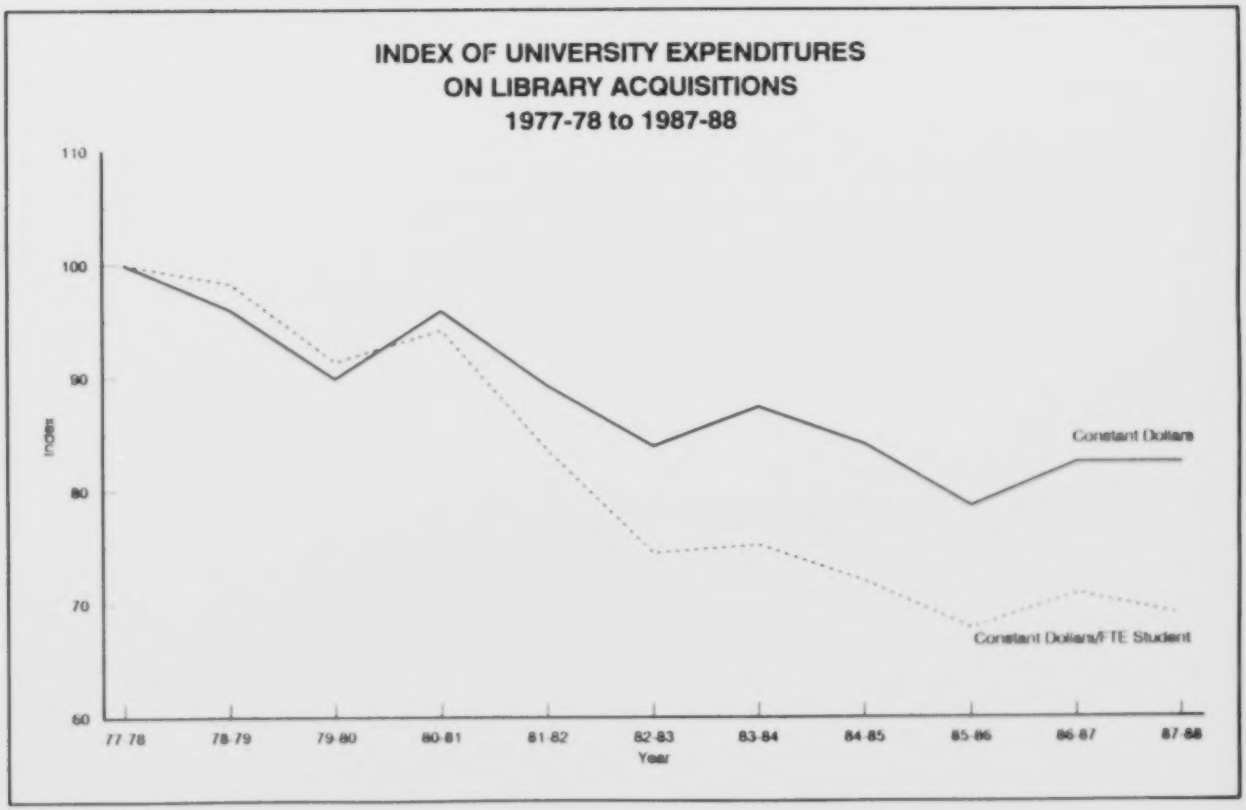
INDEX OF UNIVERSITY EXPENDITURES
ON LIBRARY ACQUISITIONS
1977-78 to 1987-88
110
100
90
80
70
60
Index
Constant Dollars
Constant Dollars/FTE Student
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
Year

TABLE 18

EXPENDITURES ON LIBRARY ACQUISITIONS
ONTARIO UNIVERSITIES, 1977-78 TO 1987-88

	Acquisitions as % of Total Operating Expenses	Constant Dollars	Constant Dollars per FTE	Cost Index
1977-78	2.0	100.0	100.0	100.0
1978-79	2.1	96.0	98.3	115.4
1979-80	2.2	89.9	91.4	136.5
1980-81	2.3	95.9	94.2	148.0
1981-82	2.2	89.3	83.6	168.8
1982-83	2.1	83.9	74.5	198.1
1983-84	2.2	87.4	75.2	214.3
1984-85	2.2	84.1	72.0	236.7
1985-86	2.2	78.6	67.8	263.8
1986-87	2.2	82.5	70.9	274.3
1987-88	2.2	82.5	69.0	290.3

Source: COFO-UO Financial Report of Ontario Universities, various years.
Bowker (U.S.) Hardcover Book and Periodical.
Price Indices converted for Canadian dollar fluctuations.

FIGURE 15

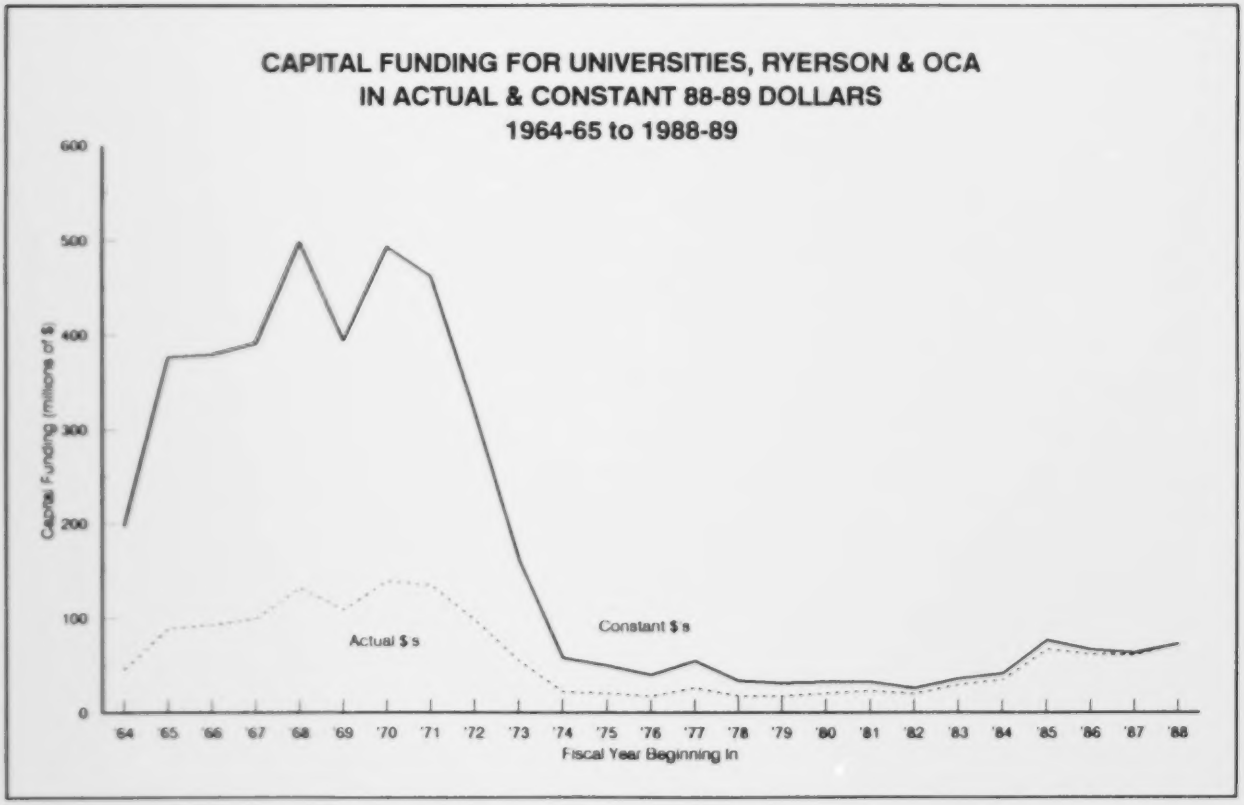
CAPITAL FUNDING FOR UNIVERSITIES, RYERSON & OCA
IN ACTUAL & CONSTANT 88-89 DOLLARS
1964-65 to 1988-89
Capital Funding (millions of $)
600
500
400
300
200
100
0
Actual $ s
Constant $ s
'64 '65 '66 '67 '68 '69 '70 '71 '72 '73 '74 '75 '76 '77 '78 '79 '80 '81 '82 '83 '84 '85 '86 '87 '88
Fiscal Year Beginning In

TABLE 19

CAPITAL FUNDING FOR UNIVERSITIES, RYERSON, OCA
1964-65 TO 1988-89

	Capital Funding ($000)	Constant 1988-89 dollars ($000)
1964-65	45,600.0	198,133.9
1965-66	89,239.0	376,558.2
1966-67	93,105.0	379,335.0
1967-68	99,995.0	391,623.3
1968-69	132,974.0	498,513.1
1969-70	109,253.0	394,795.4
1970-71	139,805.0	493,196.9
1971-72	136,047.0	462,229.7
1972-73	98,712.0	318,993.5
1973-74	54,492.0	161,834.1
1974-75	21,642.0	57,651.1
1975-76	20,593.2	49,885.5
1976-77	17,618.7	39,978.0
1977-78	26,089.6	54,494.4
1978-79	17,498.4	33,489.0
1979-80	17,740.5	31,085.3
1980-81	20,387.0	32,150.3
1981-82	22,891.7	32,174.9
1982-83	19,620.3	25,217.0
1983-84	28,960.0	35,403.0
1984-85	34,742.6	40,887.4
1985-86	67,225.8	75,996.5
1986-87	61,217.2	66,441.5
1987-88	60,653.0	63,093.5
1988-89	72,700.0	72,700.0

TABLE 20

BUILDINGS, LAND AND SITE SERVICES
TOTAL EXPENSES BY PROVINCE
1987-88

	University Buildings, Land, and Site Services ($000)	Building Expenses Per Estimated FTE Enrolment $	Index	Rank
British Columbia	$ 14,446	$ 340.75	83.7	(7)
Alberta	57,611	1,113.99	273.5	(3)
Saskatchewan	16,468	706.65	173.5	(5)
Manitoba	5,926	245.78	60.3	(9)
Quebec	28,930	190.42	46.8	(10)
New Brunswick	12,802	771.34	189.4	(4)
Prince Edward Island	3,214	1,438.49	353.2	(1)
Nova Scotia	12,193	461.63	113.4	(6)
Newfoundland	15,513	1,258.44	309.0	(2)
9-Provinces	167,103	476.04	116.9	-
Ontario	**65,771**	**297.90**	**73.1**	**(8)**
Canada	$232,874	$ 407.26	100.0	-

Source: Canadian Association of University Business Officers
Financial Statistics of Universities and Colleges 1987-88

FIGURE 16

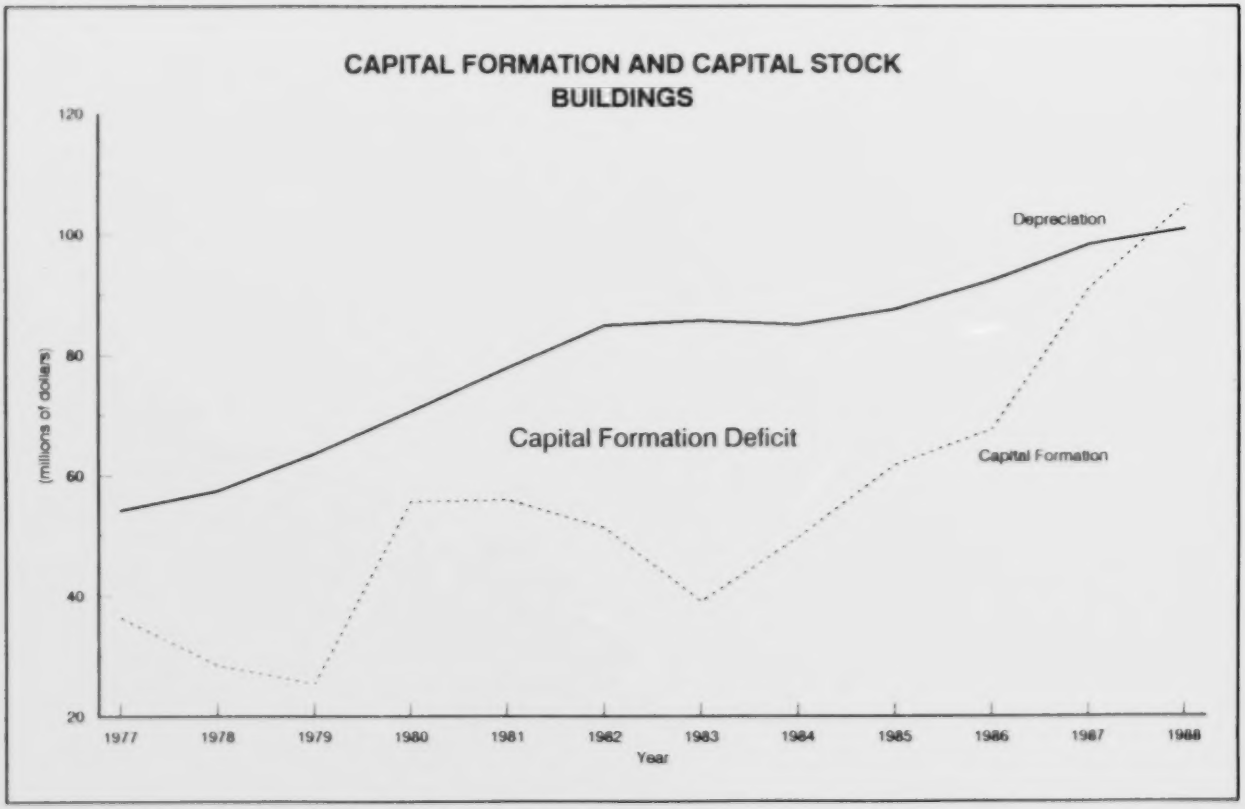
CAPITAL FORMATION AND CAPITAL STOCK
BUILDINGS
120
100
80
60
40
20
(millions of dollars)
Depreciation
Capital Formation Deficit
Capital Formation
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
Year

TABLE 21

CAPITAL FORMATION AND CAPITAL STOCK, ONTARIO UNIVERSITIES
($ MILLIONS CURRENT DOLLARS)

	Buildings				Equipment			
Years	Mid-Year Net Stock	Gross Fixed Capital Formation	Depreciation*	Net Fixed** Capital Formation	Mid-Year Net Stock	Gross Fixed Capital Formation	Depreciation*	Net Fixed** Capital Formation
1977	2,072.2	36.4	54.2	-17.8	305.7	22.1	25.3	- 3.2
1978	2,152.1	28.5	57.4	-28.9	336.4	24.2	29.3	- 5.1
1979	2,331.0	25.5	63.6	-38.1	375.0	27.2	34.1	- 6.9
1980	2,541.2	55.7	70.7	-15.0	413.0	36.5	39.2	- 2.7
1981	2,758.2	56.0	77.9	-21.9	448.1	35.6	44.3	- 8.7
1982	2,947.4	51.3	84.9	-33.6	479.8	41.6	49.4	- 7.8
1983	2,904.5	39.0	85.7	-46.7	480.2	46.6	51.2	- 4.6
1984	2,815.4	49.7	85.0	-35.3	509.7	71.4	55.3	16.1
1985	2,832.3	61.7	87.5	-25.8	552.7	80.6	59.9	20.7
1986	2,919.5	67.7	92.3	-24.6	609.6	116.0	64.6	51.4
1987***	3,048.8	91.1	98.4	- 7.3	655.5	105.1	66.8	38.3
1988***	3,068.0	105.0	100.9	4.1	681.7	88.5	66.8	21.7

* Capital Consumption Allowances

** Net Fixed Capital Formation equals Gross Fixed Capital Formation minus Depreciation.

*** Estimates for the two most recent years are based respectively on preliminary and expected investment expenditures.

Source: Statistics Canada.

TABLE 22

ESTIMATED GROSS GENERAL PROVINCIAL GOVERNMENT REVENUE PER CAPITA AND AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT AND PROVINCIAL PERSONAL INCOME 1986-87

	Gross Domestic Product ($000,000's)	Gross General Revenue %	(Rank)	Provincial Personal Income ($000,000's)	Gross General Revenue %	(Rank)	Gross General Revenue Per Capita $	Index (Canada = 100.0)	(Rank)
British Columbia	56,543	18.9	(8)	48,812	21.9	(9)	$3,706	92.0	(8)
Alberta	56,764	18.5	(9)	42,219	24.9	(7)	4,429	110.0	(2)
Saskatchewan	16,975	22.1	(7)	15,924	23.6	(8)	3,718	92.3	(7)
Manitoba	18,886	23.4	(6)	16,929	26.2	(5)	4,133	102.6	(4)
Quebec	119,166	25.9	(4)	105,545	29.3	(4)	4,727	117.4	(1)
New Brunswick	9,868	28.6	(3)	9,156	30.8	(3)	3,970	98.6	(6)
Nova Scotia	12,494	24.9	(5)	12,134	25.7	(6)	3,565	88.5	(10)
Prince Edward Island	1,444	34.8	(2)	1,533	32.8	(2)	3,970	98.6	(5)
Newfoundland	6,601	37.7	(1)	6,600	37.7	(1)	4,373	108.6	(3)
9 Provinces Outside Ontario	298,741	23.2	-	258,852	26.8	-	4,284	106.4	-
Ontario	**205,247**	**15.9**	**(10)**	**172,075**	**18.9**	**(10)**	3,571	88.7	(9)
Canada	503,988	20.2	-	430,927	23.6	-	4,027	100.0	-

Source: Statistics Canada

TABLE 23

LOCAL/PROVINCIAL GOVERNMENT "OWN SOURCE" REVENUE AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT, 1983-84

	Gross Domestic Product ($ millions)	Local/Provincial "Own Source" Revenue ($ millions)	"Own Source" Revenue as % of GDP	RANK
British Columbia	47,238	9,963.1	21.1	(5)
Alberta	56,539	14,987.8	26.5	(1)
Saskatchewan	16,281	3,774.0	23.2	(3)
Manitoba	15,048	3,286.5	21.8	(4)
Quebec	90,432	23,772.2	26.3	(2)
New Brunswick	7,348	1,410.1	19.2	(9)
Nova Scotia	9,428	1,892.7	20.1	(8)
Prince Edward Island	1,198	245.7	20.5	(7)
Newfoundland	5,444	1,142.2	21.0	(6)
9 Provinces	248,956	60,474.3	24.3	
Ontario	**151,650**	**27,649.7**	**18.2**	**(10)**
Canada	400,606	88,124.0	22.0	

Source: Statistics Canada

FIGURE 17

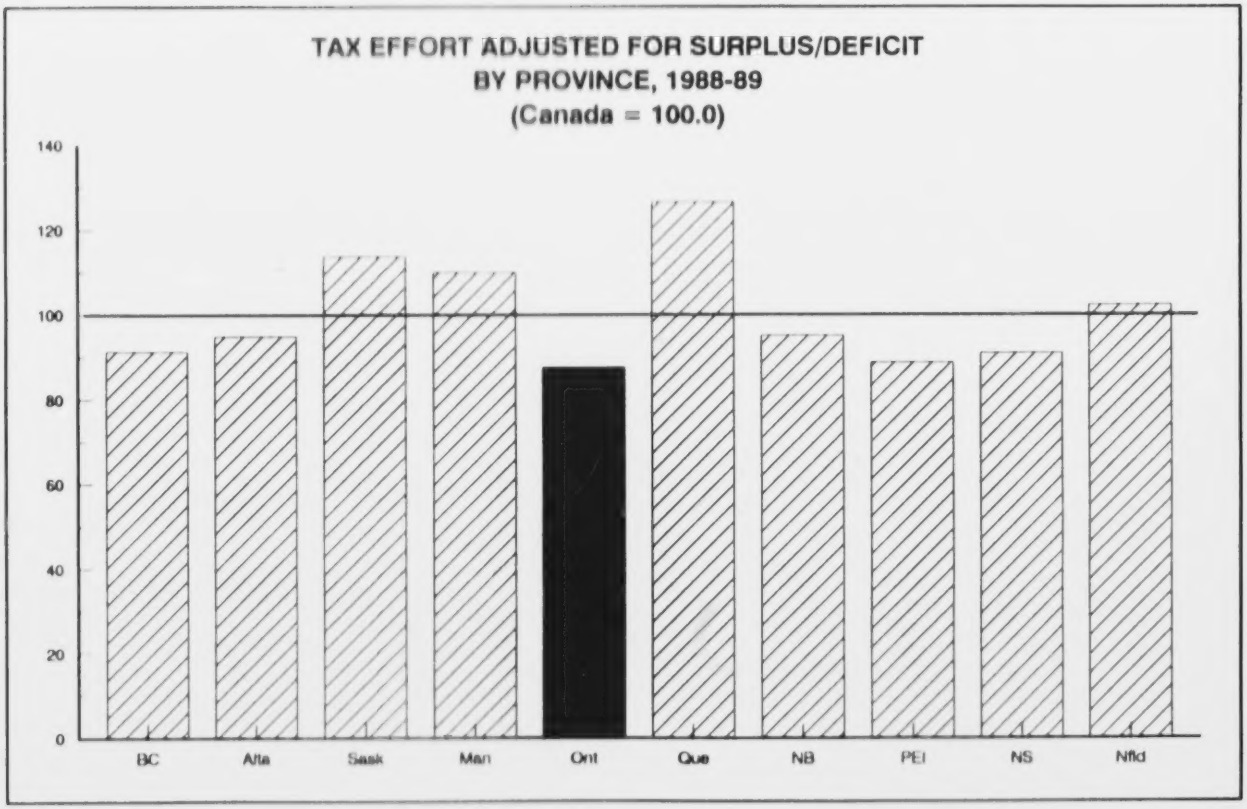
TAX EFFORT ADJUSTED FOR SURPLUS/DEFICIT
BY PROVINCE, 1988-89
(Canada = 100.0)
140
120
100
80
60
40
20
0
BC
Alta
Sask
Man
Ont
Que
NB
PEI
NS
Nfld

TABLE 24

ESTIMATED TAX CAPACITY, TAX REVENUE AND TAX EFFORT
1988-89

	Estimated Tax Capacity Per Capita	Estimated Tax Revenue Per Capita	Estimated Tax Effort Per Capita	Estimated Tax Effort Adjusted for Surplus/Deficit
British Columbia	101.4	97.4	96.0	91.3
Alberta	135.8	119.4	87.9	94.9
Saskatchewan	91.4	93.4	102.1	113.8
Manitoba	85.6	99.7	116.6	110.0
Ontario	**107.0**	**94.8**	**88.6**	**87.6**
Quebec	88.3	113.4	128.5	126.5
New Brunswick	77.2	73.1	94.7	95.1
Nova Scotia	81.1	65.5	80.8	88.7
Prince Edward Island	71.9	70.0	97.4	90.9
Newfoundland	68.8	68.2	99.2	102.3
10 Provinces	100.0	100.0	100.0	100.0

Note: Tax capacity uses a representative tax system, consisting of the various taxes imposed by provincial governments, to reflect the resources which a government can tax to raise revenue for public purposes. Tax revenue is the relative amount per capita actually raised by provincial governments. (It excludes all federal transfers and local property taxes but includes provincial revenues from natural resources and an estimate of miscellaneous revenue not normally included in federal calculations in regard to equalization payments). Tax effort measures the extent to which a government is actually cultivating the resources available for taxation. Adjusting tax effort, for surpluses and deficits, treats borrowings (where there is a deficit) as a form of revenue and surpluses as a loss of revenues which would otherwise be available for spending.

Sources: Canada Department of Finance, Federal-Provincial Relations Division.
Statistics Canada

FIGURE 18

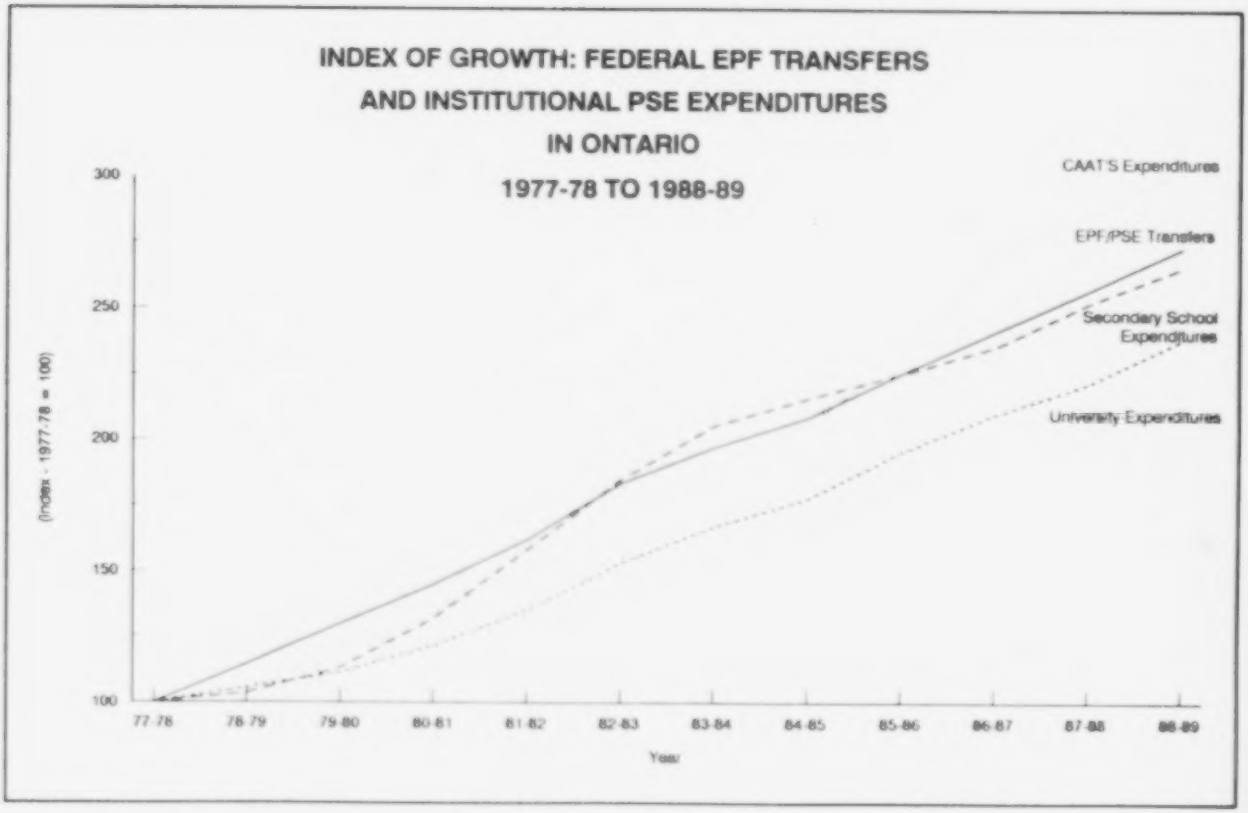
INDEX OF GROWTH: FEDERAL EPF TRANSFERS
AND INSTITUTIONAL PSE EXPENDITURES
IN ONTARIO
1977-78 TO 1988-89
CAAT'S Expenditures
EPF/PSE Transfers
Secondary School Expenditures
University Expenditures
(Index - 1977-78 = 100)
300
250
200
150
100
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
Year

FIGURE 19

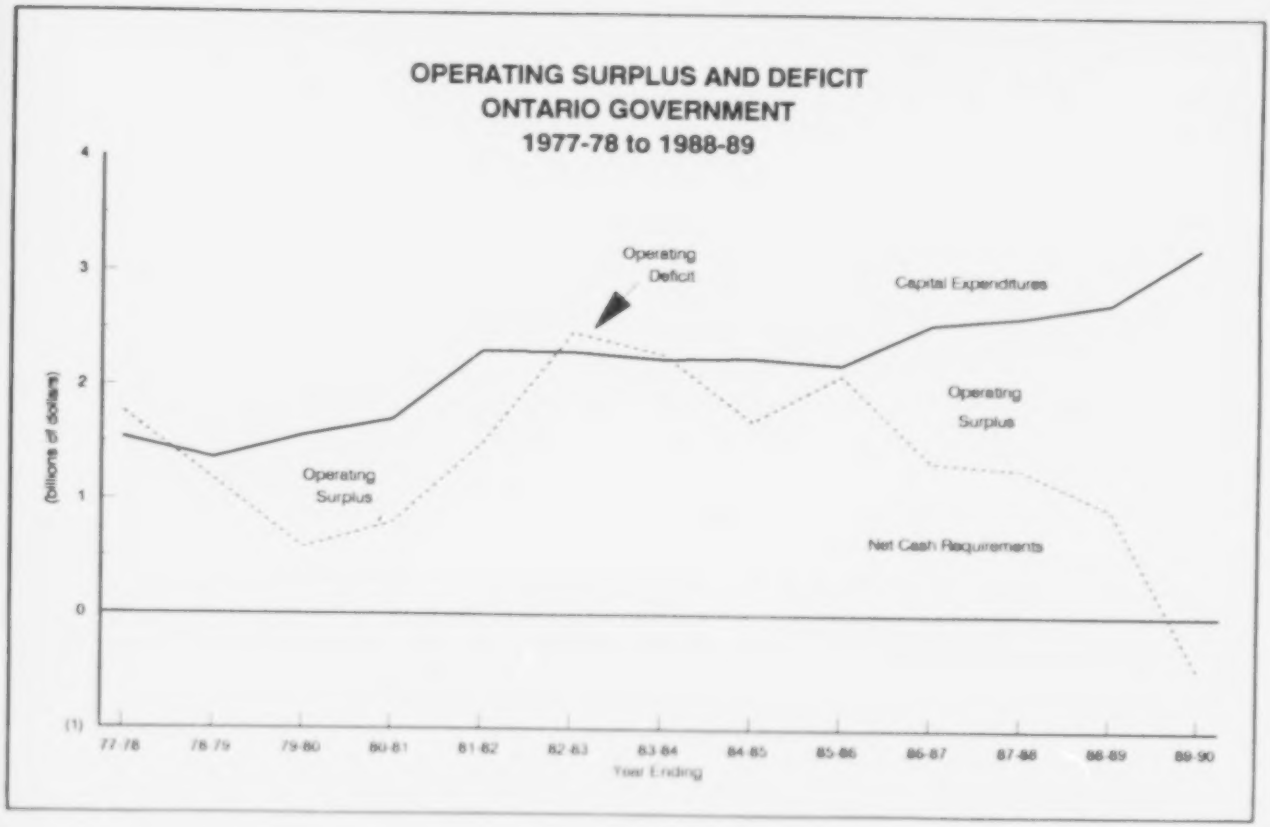
OPERATING SURPLUS AND DEFICIT
ONTARIO GOVERNMENT
1977-78 to 1988-89
(billions of dollars)
4
3
2
1
0
(1)
Operating
Deficit
Capital Expenditures
Operating
Surplus
Operating
Surplus
Net Cash Requirements
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
Year Ending

TABLE 25

CAPITAL EXPENDITURES AND BORROWINGS
PROVINCE OF ONTARIO, 1977-78 TO 1989-90
($ MILLIONS)

Year	Net Borrowings (1)	Net Cash Requirements (2)	Increase (Decrease) in Liquid Reserves (1) - (2) = (3)	Capital Expenditures (4)	Operating Funds Surplus (Deficit) (4) - (2) = (5) (3+4) - (1) = (5)
1977-78	1,506	1,762	(256)	1,536	(226)
1978-79	1,652	1,180	472	1,361	181
1979-80	1,133	584	549	1,561	977
1980-81	968	803	165	1,709	906
1981-82	1,363	1,503	(140)	2,311	808
1982-83	2,051	2,478	(427)	2,306	(172)
1983-84	2,860	2,289	571	2,244	(45)
1984-85	2,090	1,702	388	2,259	557
1985-86	2,102	2,110*	(8)	2,199	89
1986-87	1,194	1,348	(154)	2,558	1,210
1987-88	901	1,286	(385)	2,623	1,337
1988-89 (interim)	700	94	606	2,748	2,654
1989-90 (interim)	(104)	(482)	378	3,236	3,718

Notes:
(1) Proceeds of Loans minus Retirement of Loans.
(2) Expenditures minus Revenues plus or minus net Non-Budgetary Transactions.
(3) Cash, temporary investments and marketable securities. The balance at the end of 1987-88 was about $1,594 million, which is expected to increase to about $2,578 million by the end of 1989-90.
(4) Physical assets, buildings and land make up the bulk of this amount.
(5) Capital expenditures minus net cash requirements equals the surplus or deficit on current, operating expenditures. It is composed of the increase or decrease in liquid reserves plus capital investments and minus net borrowings.

* Includes Extraordinary Adjustments (net) of $505 million.
The above Table separates funds raised for operating purposes and funds raised for capital purposes. As shown in column 5, in ten of the current and previous thirteen years, all operating fund requirements were met by taxation, federal transfers, or other revenue sources (i.e. no borrowed funds were involved). Net borrowings averaged $1.4 billion per year, but in most years were used to increase liquid reserves and to finance capital expenditures. Other capital expenditures were financed out of operating funds.

Source: *Public Accounts*, various years.
Ontario Budget, various years.
Ontario Finances, Quarterly Update, June 30, 1989.

FIGURE 20

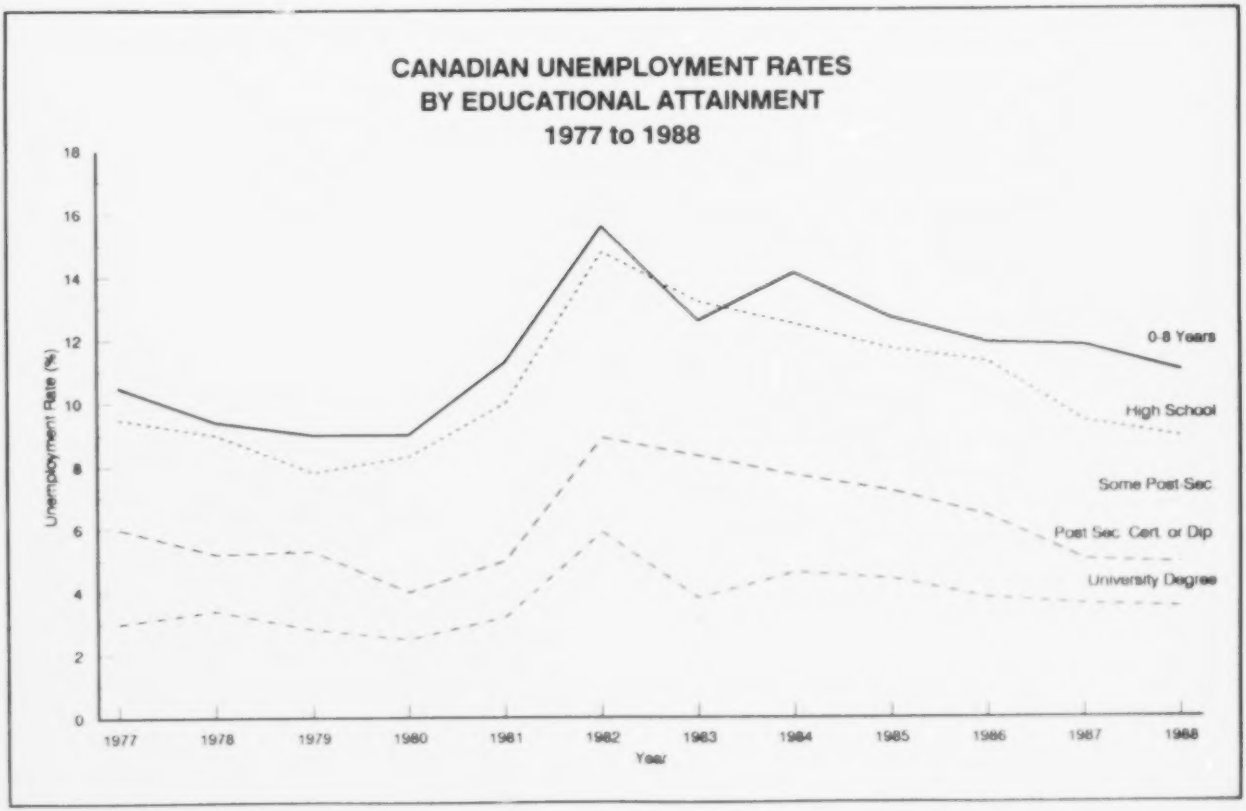
CANADIAN UNEMPLOYMENT RATES
BY EDUCATIONAL ATTAINMENT
1977 to 1988
Unemployment Rate (%)
18
16
14
12
10
8
6
4
2
0
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
Year
0-8 Years
High School
Some Post Sec
Post Sec. Cert. or Dip
University Degree

TABLE 26

CANADIAN UNEMPLOYMENT AND PARTICIPATION RATES BY EDUCATIONAL ATTAINMENT (SEASONALLY ADJUSTED)

UNEMPLOYMENT RATES*

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	Participation** Rates 1988
Total Canadian Labour Force	8.3%	7.9%	7.0%	7.1%	8.5%	12.7%	11.1%	10.7%	9.8%	9.3%	7.9%	7.4%	65.8%
0-8 Years	10.5	9.4	9.0	9.0	11.3	15.6	12.6	14.1	12.7	11.9	11.8	11.0	37.1
High School	9.5	9.0	7.8	8.3	10.0	14.8	13.2	12.5	11.7	11.3	9.4	8.9	66.6
Some Post-Secondary	6.9	7.0	4.8	6.7	6.6	11.1	11.0	9.4	8.2	7.7	6.6	6.8	70.1
Post-Secondary Certificate or Diploma	6.0	5.2	5.3	4.0	5.0	8.9	8.3	7.7	7.2	6.4	5.0	4.9	79.4
University Degree	3.0	3.4	2.8	2.5	3.2	5.9	3.8	4.6	4.4	3.8	3.6	3.5	85.4

Source: Estimates by Educational Attainment. *The Labour Force* Monthly Report. Statistics Canada.

* As of December of each year.
** Labour Force percentage of population 15 years and over.

APPENDIX

APPENDIX

UPDATE OF THE

ONTARIO UNIVERSITY NON-SALARY PRICE INDEX

The Ontario University Non-Salary Price Index was developed in 1978 to provide "a more sensitive tool to assist in measuring the likely impact of inflation on non-salary expenditure, and a more accurate measure of the extent of inflationary erosion between any two years"* The OUNSPI measures both component and global price changes for university non-salary expenditure. The components inlcude library aquisitions, equipment and furniture, operational supplies and expenses, utilities, renovations, alterations, and major repairs, externally contracted services, travel, insurance and space rental. In 1984, the OUNSPI was revised to take account of altered patterns of expenditure.

This year, the Computing equipment component price index and annual percentatge variation has been revised. Beginning in 1981, Statistics Canada collected information on price changes in the electronic computing and peripheral equipment industry. This permits a revision of the Computing equipment component data, for each year subsequent to the 1981-82 university fiscal year, utilizing this industrial product price index from Statistics Canada. For 1981-82 and prior years, information from the U.S. Higher Education Prices and Price Indexes, converted for Canadian dollar fluctuations, continued to be utilized.

The following tables update both the index values and the price variations to 1987-88:

- Table A-1 provides information on the annual percentage variations of components.
- Table A-2 provides an update of index values for each component based on 1980-81 being equal to 100.0.

Figure A-1 identifies the sources of information for the various components employed in OUNSPI and indicates the index weights employed for each component in the calculation of the overall, non-salary price index.

* Council of Ontario Universities, *Ontario University Non-Salary Price Index*, February 1978.

FIGURE A-1

SOURCE AND WEIGHTING PATTERN OF COMPONENT INDICES

Component	Index Weights	Source
Books	7	Bowker (U.S.) Hardcover Book Price Index, converted for Canadian dollar fluctuations.
Periodicals	7	Bowker (U.S.) Periodical Price Index, converted for Canadian dollar fluctuations.
Equipment	10	U.S. Department of Commerce. Survey of Current Business. Price index for machinery and equipment, converted for Canadian dollar fluctuations.
Computing	10	Research Associates of Washington. Higher Education Prices and Price Indexes: 1986 Update. Data processing hardware. Converted for Canadian dollar fluctuations. Statistics Canada Industrial Product Price Index - Electronic Computing and Peripheral Equipment Industry.
Furniture	2	Statistics Canada Industrial Product Price Index - Office Furniture Industries.
Stationery and Paper	8	Statistics Canada Industrial Product Price Index - Paper and Allied Product Industries.
Printing Materials	7	Statistics Canada Industrial Product Price Index - Fine Papers.
Tools and Apparatus	8	Statistics Canada Industrial Product Price Index - Hardware, Tool and Cutlery Industries.
Chemicals	4	Statistics Canada Industrial Product Price Index - Chemical & Chemical Products Industries.
Postage	3	Statistics Canada Consumer Price Index - Postage.
Long Distance	2	Statistics Canada Consumer Price Index - Communications.
Electricity	9	Statistics Canada Industry Selling Price Index - Electric Power Selling Price Index (Non-Residential) over 5,000 KW - Ontario.
Gas	7	Statistics Canada Consumer Price Index - Piped and Bottled Gas.
Oil	1	Statistics Canada Industrial Product Price Index - Heavy Fuel Oil.
Telephone	4	Statistics Canada Consumer Price Idex - Communications.
Water	1	Statistics Canada Consumer Price Index - Water.
Renovations	3	Statistics Canada Construction Building Material Price Index - Non-Residential.
Transportation	3	Statistics Canada Consumer Price Index - Transportation.
Shelter	1	Statistics Canada Consumer Price Index - Shelter.
Food Away From Home	1	Statistics Canada Consumer Price Index - Food Purchased From Restaurants.
Insurance	1	Statistics Canada Consumer Price Index - Homeowner's Insurance Premiums.
Space Rental	1	Statistics Canada Consumer Price Index - Shelter.

TABLE A-1

ANNUAL PERCENTAGE VARIATION IN THE ONTARIO UNIVERSITY NON-SALARY PRICE INDEX COMPONENTS

Component	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
Books	9.9	-3.7	-5.3	13.0	19.5	4.1	19.2	9.5	25.2	3.5	10.8	17.0	3.2	2.5	9.2	2.1	3.8e
Periodicals	8.3	11.3	23.7	6.9	17.1	9.5	17.8	22.3	11.0	14.5	16.1	17.6	12.5	16.7	13.0	7.9	4.6
Equipment	1.4	0.4	5.2	19.2	13.1	4.6	16.5	15.0	11.1	12.5	15.3	7.3	2.8	9.1	5.8	0.6	-3.2
Computing	1.9	1.4	1.2	3.4	7.9	0.5	9.1	6.2	5.9	19.8	14.9	3.4	-0.2	2.6	2.2	1.9	0.0
Furniture	5.0	4.7	11.0	14.8	8.5	6.1	4.9	7.0	12.8	10.4	12.3	7.2	4.5	6.7	6.0	4.7	3.1
Stationery and Paper	1.1	2.0	20.3	33.8	9.0	3.6	5.0	9.9	17.3	14.1	9.0	-0.6	0.9	10.7	-0.5	6.9	9.9
Printing Materials	1.7	4.5	22.7	23.5	2.2	-0.7	4.2	7.2	14.2	10.0	10.3	2.6	2.7	6.7	0.1	6.0	5.2
Tools and Apparatus	3.2	2.3	6.8	16.0	10.9	6.5	11.6	10.6	16.7	14.3	11.6	8.3	4.3	5.9	5.0	3.5	3.7
Chemicals	1.1	1.8	11.0	30.5	10.0	4.2	6.0	8.7	16.7	15.0	12.7	5.0	3.3	2.7	2.1	0.1	6.1
Postage	12.3	7.6	-	-	0.4	19.3	25.3	17.0	19.6	0.2	24.2	40.9	5.1	0.0	10.8	2.5	7.7
Long Distance	2.6	4.5	1.9	1.0	3.7	7.4	9.3	5.6	3.5	4.5	11.5	15.1	5.4	1.4	1.1	-0.6	-0.2
Electricity	4.9	6.9	8.0	8.2	9.4	28.3	28.3	5.3	10.4	11.7	9.8	9.7	8.3	8.1	6.5	4.6	5.5
Gas	1.5	0.4	4.9	12.4	25.8	22.1	15.6	14.6	5.5	17.9	26.5	22.0	5.0	1.4	0.0	-0.6	-1.9
Oil	11.7	-3.3	54.4	52.1	10.1	18.5	20.8	14.8	25.8	22.4	24.6	7.4	13.7	11.9	-5.2	-37.6	12.7
Telephone	2.6	4.5	1.9	1.0	3.7	7.4	9.3	5.6	3.5	4.5	11.5	15.1	5.4	1.4	1.1	-0.6	-0.2
Water	-	-	-	7.7	8.5	12.3	11.7	7.6	7.3	8.3	12.4	11.7	6.7	6.5	6.5	3.1	2.2
Renovations	4.4	5.2	11.9	19.0	5.5	5.6	6.8	11.1	15.1	9.4	9.7	4.8	4.6	3.3	4.4	5.0	4.8
Transportation	3.9	1.8	5.0	11.0	12.2	9.2	6.0	6.6	11.4	14.4	18.1	10.7	4.7	3.9	5.0	2.0	4.4
Shelter	5.3	6.0	6.5	7.7	9.7	10.9	8.5	6.7	5.5	7.6	12.5	11.0	5.7	3.8	3.5	3.3	4.7
Food Away From Home	4.5	7.6	15.7	18.4	11.9	7.4	5.3	8.7	12.1	8.5	9.9	9.6	4.5	4.0	4.3	4.9	3.6
Insurance	28.5	20.9	22.4	13.2	26.0	21.2	12.2	5.9	5.8	8.9	20.0	8.4	5.6	2.8	5.4	10.5	13.0
Space Rental	5.3	6.0	6.5	7.7	9.7	10.9	8.5	6.7	5.5	7.6	12.5	11.0	5.7	3.8	3.5	3.3	4.7

e = estimated figure

TABLE A-2

COMPONENT PRICE INDICES IN THE ONTARIO UNIVERSITY NON-SALARY PRICE INDEX
(BASED ON THE FISCAL YEAR 1980-81 = 100.0)

Component	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
Books	42.0	46.1	44.4	42.0	47.5	56.8	59.1	70.5	77.2	96.6	100.0	110.8	129.6	133.8	137.2	149.8	153.0	158.7e
Periodicals	26.7	29.0	32.2	39.8	42.6	49.9	54.6	64.3	78.7	87.4	100.0	116.1	136.5	153.6	179.3	202.7	218.6	228.6
Equipment	39.6	40.1	40.3	42.4	50.5	57.1	59.7	69.6	80.0	88.9	100.0	115.3	123.7	127.2	138.8	146.9	147.8	143.0
Computing	58.0	59.1	60.0	60.7	62.7	67.7	68.0	74.2	78.8	83.5	100.0	114.9	118.7	118.5	121.6	124.2	126.6	126.7
Furniture	44.4	46.6	48.8	54.1	62.1	67.4	71.5	75.0	80.3	90.5	100.0	112.3	120.3	125.7	134.1	142.1	148.8	153.4
Stationery and Paper	34.5	34.9	35.6	42.8	57.3	62.4	64.7	68.0	74.7	87.6	100.0	109.0	108.4	109.3	121.0	120.4	128.7	141.5
Printing Materials	43.6	44.4	46.4	56.9	70.3	71.8	71.3	74.2	79.6	90.9	100.0	110.3	113.2	116.2	124.0	124.2	131.6	138.5
Tools and Apparatus	39.3	40.6	41.5	44.3	51.4	57.1	60.7	67.8	74.9	87.5	100.0	111.6	120.9	126.1	133.5	140.2	145.1	150.5
Chemicals	37.9	38.3	39.0	43.3	56.4	62.1	64.7	68.6	74.5	86.9	100.0	112.7	118.3	122.2	125.6	128.2	128.3	136.1
Postage	39.3	44.2	47.5	47.5	47.5	47.7	56.9	71.3	83.4	99.8	100.0	124.2	175.0	183.9	183.9	203.7	208.8	224.9
Long Distance	65.2	66.9	69.9	71.2	72.0	74.6	80.2	87.6	92.5	95.7	100.0	111.5	128.4	135.3	137.1	138.6	137.7	137.5
Electricity	32.7	34.3	36.6	39.6	42.8	46.8	60.0	77.0	81.1	89.5	100.0	109.8	120.5	130.5	141.1	150.2	157.2	165.9
Gas	32.9	33.4	33.5	35.1	39.5	49.7	60.7	70.2	80.4	84.8	100.0	126.5	154.3	162.0	164.3	164.3	163.3	160.1
Oil	14.0	15.7	15.2	23.4	35.6	39.2	46.5	56.2	64.5	81.7	100.0	124.6	133.8	152.2	170.3	161.5	100.7	113.5
Telephone	65.2	66.9	69.9	71.2	72.0	74.6	80.2	87.6	92.5	95.7	100.0	111.5	128.4	135.3	137.1	138.6	137.7	137.5
Water	54.5	54.5	54.5	54.5	58.7	63.7	71.6	80.0	86.0	92.3	100.0	112.4	125.5	134.0	142.8	152.1	156.8	160.2
Renovations	41.1	42.9	45.1	50.5	60.0	63.4	66.9	71.5	79.4	91.4	100.0	109.7	115.0	120.2	124.2	129.6	136.1	142.7
Transportation	46.0	47.7	48.6	51.1	56.7	63.6	69.5	73.7	78.5	87.4	100.0	118.1	130.7	136.7	142.1	149.2	152.1	158.7
Shelter	48.9	51.4	54.5	58.1	62.6	68.6	76.1	82.6	88.1	93.0	100.0	112.5	124.8	131.9	136.9	141.7	146.3	153.2
Food Away From Home	38.8	40.5	43.6	50.4	59.7	66.8	71.8	75.6	82.2	92.1	100.0	109.9	120.4	125.8	130.9	136.5	143.2	148.4
Insurance	22.2	28.6	34.5	42.3	47.8	60.3	73.0	82.0	86.8	91.9	100.0	120.0	130.1	137.3	141.2	148.8	164.5	185.8
Space Rental	48.9	51.4	54.5	58.1	62.6	68.6	76.1	82.6	88.1	93.0	100.0	112.5	124.8	131.9	136.9	141.7	146.3	153.2

e = estimated figure